

Dictionary
of
the Holy Qur'ān
**Lexicon of Plants
and Botanic Terms**



Kuwait Foundation for the Advancement of Sciences

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**Lexicon of Plants
and Botanic Terms**

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In the Name of Allah, Most Gracious, Most Merciful

Dictionary of the Holy Qur'ān

An Academic Project Sponsored by
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List of transliterations of Arabic Characters

Consonants

ا	:	ʾ	ض	:	ḍ
ب	:	b	ط	:	ṭ
ت	:	t	ظ	:	ẓ
ث	:	th	ع	:	ʿ
ج	:	j	غ	:	gh
ح	:	ḥ	ف	:	f
خ	:	kh	ق	:	q
د	:	d	ك	:	k
ذ	:	dh	ل	:	l
ر	:	r	م	:	m
ز	:	z	ن	:	n
س	:	s	هـ	:	h
ش	:	sh	و	:	w
ص	:	ṣ	ي	:	y

Short Vowels

ـَ	:	a
ـُ	:	u
ـِ	:	i

Long Vowels

اى	:	ā
و	:	ū
ي	:	ī

In the Name of Allah, Most Gracious, Most Merciful

Praise be to Allah, whose help and forgiveness we seek and whom we beseech for support, success, and acceptance. May His Peace and Blessings be upon Prophet Moḥammad, Seal of all Prophets, and upon his family and companions.

This Dictionary of the Qurʾān is a most important undertaking. It is the result of the noble directives of His Highness Sheikh Jāber al-Aḥmad al-Jāber al-Ṣabāḥ, the Amir of the State of Kuwait, chairman of the Fifth Session of the Islamic Organization Conference. His Highness promised to bestow upon the Islamic nation in particular and the world in general such a dictionary of Qurʾānic terms, at the conclusion of his term of chairmanship. The purpose is to make the Holy Qurʾān easier to comprehend, and to clarify its connotations and implications in a modern spirit, so that it will not be difficult for the educated man and will not fall short of the needs of specialists in the field.

The Holy Qurʾān is the Book of Allah, His final word to Prophet Moḥammad Ṭbn ʿAbdullah, Seal of Prophets, may His Peace and Blessings Be Upon Him (PBBUH). It stands as the heart of Islam, around which revolves all human activity for each and every one who believes in its Message. As the erudite among Islamic experts have truly observed, all that is authentic in the **sunnah** سنة of Allah's Messenger (the sayings and deeds of Prophet Moḥammad) (PBBUH) is an explication of the Holy Qurʾān. In the same way, all that has been produced by the minds of **ʿulamāʾ** علماء (savants), **fuqahāʾ** فقهاء (jurists, experts in Islamic jurisprudence) and **mujtahidīn** مجتهدین (experts on judgements in legal and theological questions based on the four **uṣūl** أصول) is an explication of the **sunnah**. In other words the Holy Qurʾān is the pivot of the doctrinal movement of the world of Islam. Those who are acquainted with Islamic thought will find that all the fundamentals of each branch of knowledge (legislation, jurisprudence, history, language, medicine, astronomy, agriculture, etc.) have their basis in the letter or the spirit of the Holy Qurʾān.

It follows, then, that any dictionary of Qurʾānic terms would be an inventory and explication of the vocabulary of Arab-Islamic culture. But is that the purpose of this dictionary?

Obviously, this is not the case. Such an endeavour would require tens of dictionaries, covering all Arab-Islamic branches of knowledge which are founded on the Holy Qur'ān. It is a task for the future generations who will never cease their labours in the field. From the vantage point of the team engaged in this project, a dictionary of Qur'anic terms depends upon the terminologies which stand for a technical term, a lexical entry, or a separate concept in the creed, **sharī'ah** (jurisprudence), metaphysics, or ethics.

Anyone consulting this dictionary or studying the Holy Qur'ān must be acquainted with a number of essential lexical items which stand for definitions and descriptive notes. These entries include the botanic terminology which we find in the text of the Holy Qur'ān. There are ninety-eight such terms. This is not necessarily the precise total. On the one hand, as lexicographers and compilers of encyclopedias are aware, the count of terms is subject to the rules and criteria adopted. Additionally, it is inevitably subject to different points of view. For example, items such as **bāsiqāt** **باسقات**, **bahjah** **بهجة**, **khurūj** **خروج** (sprouting from the soil) and **`aṣā** **عصا** have been omitted, although some might consider them worthy of inclusion. On the other hand, items such as **jurz** **جرز**, **kifāt** **كفات**, and **hāmidah** **هامة** (all adjectives used to describe **arḍ** **ارض** earth, soil) have been included, where some would have omitted them.

It should be noted that some of the terms explicated in a botanical context also appear in the Holy Qur'ān in other contexts, and are explained and dealt with therein.

For illustration, let us consider the following terms: **arḍ** **ارض** : i.e. the planet Earth, used in the Holy Qur'ān in contrast to **samā'** **سماء** (sky, heaven, space). It is also used to refer to a specific part of that planet (i.e. the land):

Joseph said to the Egyptian pharaoh:

Set me over the storehouses of the Land.

أَجْعَلْنِي عَلَى خَزَائِنِ الْأَرْضِ ۚ

(Q: S. 12, Yūsuf, 55). (يوسف: ٥٥)

It is also used to denote the Land of Paradise (al-Zumar, S. 39: 74). The Holy Qur'ān contains 445 references to **arḍ** (preceded by al, i.e. the), all of which conform to one of these three denotations. The term **arḍ** appears without the definite article as a common noun to denote a portion of the earth. The meaning is specified adjectivally or by suffixation (in Ar.): **arḍukum** (your land), **arḍunā** (our land), **arḍuhum**

(their land), **árḍun muqaddasah** (Holy Land).

In this botanical entry, the term has been treated only from the perspective of botanic signification. Other meanings are dealt with elsewhere in the dictionary.

Duhn دهن : this botanic entry refers to anything that is smoothly rubbed, or embrocated. In the Holy Qurʾān, this item refers to other non-botanical meanings, such as **al-mudāhanah** المداينة (pliancy), and **al-īdhān** الابهان (deprecation).

Allah, the All-Perfect, says

Their desire is that thou shouldst be pliant, so would they be pliant.

(Q: S. 68: al-Qalam, 9). (القلم: ٩)

﴿وَدُّوا لَوْلَا يُدْنُّهُمْ﴾

Is it such a message that ye would hold in light esteem?

(Q: S. 56, al-Wāqīʿah, 81). (الواقعة: ٨١)

﴿أَفِيَهَذَا الْحَدِيثِ أَنْتُمْ مُدْنُّونَ﴾

These meanings will be dealt with elsewhere in the dictionary.

Raʿā رعى : There is the botanic meaning relevant to **raʿyu al-kalaʿ** رعي الكلا (the grazing of herbs) and such phrases are dealt with under this botanic entry. Other references in the Holy Qurʾān, such as **riʿāyah** رعاية (care, custody, consideration, patronage) and the Jews' uttering of **rāʾinā** راعنا (Q: S. 4, al-Nisāʿ, 46). with twisted tongues, appear in the dictionary in their appropriate position.

These examples are offered to show that a botanical entry is confined to botanical terminology. The dictionary will deal with all other meanings appearing in the Holy Qurʾān, inclusive of the botanical. This botanical introduction is given as a guide to the use and methodology of this dictionary, as well as to the specialized nature of the terminology.

There are three caveats to be taken into account:

First: the modern scientific facts contained in this dictionary are not to be taken as in any way judgemental of the context of the Holy Qurʾān. The Holy Qurʾān is the judge and the absolute authority and truth.

No falsehood can approach it from before or behind it.

(Q: S. 41, Fuṣṣilat, 42). (فصلت: ٤٢)

﴿لَا يَأْتِيهِ الْبَاطِلُ مِنْ بَيْنِ يَدَيْهِ وَلَا مِنْ خَلْفِهِ﴾

Our aim is to try to comprehend the Holy Qur'ān, which is in the first place a book of guidance, wise counsel, and a reminder. It follows that we have not 're-cast' the 'Āyas (verses) to conform to modern science, nor do we give Qur'anic terminology any connotation which it did not possess at the time of revelation. At the same time, we believe that man will always discover fresh knowledge which will lead him to the truth of the Qur'ān, and that it is "set down by One Full of Wisdom, Worthy of all Praise" (Q: S. 41, Fuṣṣilat, 42).

Second: we have included under botanical terminology simplified treatises relevant to the main facts which the Holy Qur'ān points out with regard to plants, their growth and fruition, as a comprehensive foreword that will assist the reader in understanding them in an extensive and accurate manner.

Third: we believe that the Book of Allah is the only one above error or shortcoming, whilst our work is limited by human weakness. But, while not seeking praise for our work, we have exerted every effort in our faithful investigations. This work relates to the Book of Allah (May His Name be Praised). Its success is the common responsibility of the author and the esteemed reader who is invited to bring to our attention any instances of error or shortcoming.

Head of the Project
Professor `Abdulla Yūsuf al-Ghunaim

FOREWORD

This part of the Dictionary of the Qur'ān deals with ninety-eight botanical terms, a fact which vividly reflects the great attention the Holy Qur'ān pays to plants as one of the features of creation and the great blessings of Almighty Allah on life, beings, and man in particular.

In order to clearly understand the references of the Holy Qur'ān and their content in this respect, we first offer four basic topics which are necessary for a more extensive and accurate understanding of the objectives of the Holy Qur'ān. These topics are:

- The emergence of plants and its link to resurrection;
- Plants of all kinds;
- Let Man reflect on his food;
- Creating every living thing from water.

Other important terms such as **khaḍīr** (green), and **zawj** (pair) are briefly referred to in their positions in the Dictionary.

We pray to Allah Almighty for His guidance.

THE EMERGENCE OF PLANTS AND ITS LINK TO RESURRECTION

And produce every kind of harvest
therewith: thus shall We raise up the
dead.

﴿فَأَخْرِجْنَا بِهِ مِنْ كُلِّ الثَّمَرَاتِ كَذَلِكَ نُخْرِجُ الْمَوْتَى﴾

(Q: 5.7, al-`A`rāf, 57). (الاعراف: ٥٧)

The botanical world – plants, their growth and their fruition – has been favoured in appearing many times in various `Āyas (verses) of the Holy Qur`ān. References to the growth of plants occur most frequently in the Holy `Āyas revealed to the Prophet (PBBUH) in Mecca. Plants are not merely referred to for the purpose of entreating the blessings of God. They are mentioned in `Āyas which concern the process of creation, procreation, and resurrection, in addition to `Āyas which exhort mankind to scrutinize, contemplate, reason, and reflect. Moreover, they appear in `Āyas which refute the false claim of the unbelievers with regard to Allah's power to procreate and to re-new life from that which is dead, and to restore man to life after death.

The phenomenon which merits special attention, reflection, and contemplation is the association found in many `Āyas between man's creation and resurrection and the same process with regard to plants. Many `Āyas of the Holy Qur`ān reiterate the unity among the roots of life on our planet, and that the growth and blooming of plants is an example of resurrection after death. Allah the Most Sublime says:

And among His signs is this: thou seest
the earth barren and desolate; but
when We send down rain to it, it is
stirred to life and yields increase.
Truly, He who gives life to the (dead)
earth can surely give life to (men) who
are dead for He has power over all
things

﴿وَمِنْ آيَاتِهِ أَنْ تَرَى الْأَرْضَ خَاشِعَةً فَإِذَا أَنْزَلْنَا
عَلَيْهَا الْمَاءَ أَهْزَتْ وَرَبَّتْ إِنَّ اللَّهَ يُحْيِي الْمَوْتَى
إِنَّهُ عَلَى كُلِّ شَيْءٍ قَدِيرٌ﴾

(Q: S.41, Fuṣṣilat, 39). (فصلت: ٣٩)

The Holy Qur'ān is replete with 'Āyas concerning the concept of **khurūj** خروج in the sense of resurrection and rejuvenation. There are more than 30 'Āyas of this kind, found in 23 sūras (chapters of the Qur'ān). The word 'akhraja and its derivatives also appear in the same sense. Most of them associate the concept of the blooming of a plant with the idea of resurrection and rejuvenation, and underscore the fact that the idea of bringing the living from the dead applies both to plant and man.

In this survey, we present an overview of the Holy 'Āyas where 'akhraja and its derivatives appear in relation to plants, the 'Āyas that refer to the rejuvenation of the earth, and those which link the idea of the flourishing of a plant on the one hand and the resurrection, rejuvenation, and the issuance of the living from the dead and the dead from the living, on the other. We attempt to align our knowledge of the sciences of botany and environmental studies with the context of these Holy 'Āyas. In this regard, we must emphasize that in no way do we offer this as evidence of the Truth of the Word of Allah, the Revered and Most Sublime. Our knowledge is subject to error and imperfection. However, our painstaking examination of the 'Āyas of Allah has led us to contemplate them as well as His creation of this vast universe, and to consider the phenomena whereby the Holy Qur'ān associates the flourishing of the plant from the earth and the rejuvenation of the soil itself on the one hand, and the concepts of resurrection and procreation on the other. This is a matter worthy of the deepest thought in view of its miraculous nature, which remains beyond our comprehension.

We approach this study in the belief that what science or knowledge accomplishes and whatever the learned achieve, are only in response to Allah's command that His creation be contemplated and understood. We also believe that no matter how many types of phenomena the learned succeed in uncovering, they are certainly unable to penetrate the secrets known only to Allah.

First: 'Āyas in which the word 'akhraja اخرج and its derivatives are used in relation to plants:

Here, we will examine the Holy 'Āyas relevant to the flourishing of plants and the inscrutable nature of those 'Āyas. They appear in ten positions in the Holy Qur'ān as follows:

It is Allah who hath created the heavens and the earth and sendeth down rain from the skies, and with it bringeth out fruits wherewith to feed you; it is He who hath made the ships

﴿اللَّهُ الَّذِي خَلَقَ السَّمَوَاتِ وَالْأَرْضَ وَأَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجَ بِهِ مِنَ الثَّمَرَاتِ

subject to you, that they may sail through the sea by His command, and the rivers (also) hath He made subject to you.

(Q: S.14, Ibrāhīm, 32).

رَزَقَا لَكُمْ وَسَخَّرَ لَكُمُ الْفُلَاكَ لِتَجْرِيَ فِي
الْبَحْرِ بِأَمْرِهِ وَسَخَّرَ لَكُمُ الْأَنْهَارَ ﴿٣٢﴾

(إبراهيم: ٣٢)

(He) who has made the earth your couch; and the heavens your canopy; and sent down rain from the heavens; and brought forth therewith fruits for your sustenance; then set not up rivals unto Allah when ye know (the truth).

(Q: S. 2, al- Baqarah, 22).

﴿الَّذِي جَعَلَ لَكُمُ الْأَرْضَ فِرَاشًا وَالسَّمَاءَ بِنَاءً
وَأَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجَ بِهِ مِنَ الثَّمَرَاتِ رِزْقًا
لَكُمْ فَلَا تَجْعَلُوا لِلَّهِ أَنْدَادًا وَأَنْتُمْ تَعْلَمُونَ﴾ (البقرة: ٢٢)

(البقرة: ٢٢)

Seest thou not that Allah sends down rain from the sky? With it We then bring out produce of various colours. And in the mountains are tracts white and red of various shades of colour, and black intense in hue.

(Q: S. 35, Fāṭir 27).

﴿الَّذِينَ تَرَىٰ أَنْزَلَ اللَّهُ مَاءً فَأَخْرَجَ مِنْهُ خَضِرًا
ثَمَرَاتٍ مُخْتَلِفًا أَلْوَانُهَا وَمِنَ الْجِبَالِ جُدَدٌ بِيضٌ
وَحُمْرٌ مُخْتَلِفٌ أَلْوَانُهَا وَغَرَابِيبُ سُودٌ﴾ (فاطر: ٢٧)

(فاطر: ٢٧)

And do We not send down from the clouds water in abundance that We may produce therewith grain and vegetables, and gardens of luxurious growth.

(Q: S. 78, al- Naba', 14-16).

﴿وَأَنْزَلْنَا مِنَ الْمُعْصِرَاتِ مَاءً مُجَاوِرًا لِنُخْرِجَ بِهِ حَبًّا
وَنَبَاتًا وَجَنَّاتٍ أَلْفَافًا﴾ (النبا: ١٤ - ١٦)

(النبا: ١٤ - ١٦)

Seest thou not that Allah sends down rain from the sky, and leads it through springs in the earth? Then He causes to grow, therewith, produce of various colours: then it withers; thou wilt see it grow yellow; then He makes it dry up and crumble away. Truly, in this, is a message of remembrance to men of understanding.

(Q: S. 39, al-Zumar, 21).

﴿الَّذِينَ تَرَىٰ أَنْزَلَ اللَّهُ مَاءً فَسَالَتْ سَلَخًا يَنْبِيعُ
فِي الْأَرْضِ ثُمَّ يُخْرِجُ بِهِ زَرْعًا مُخْتَلِفًا أَلْوَانُهُ ثُمَّ يَهِيجُ
فَتَرَاهُ مُصْفًى ثُمَّ يَجْعَلُهُ حُطْلًا إِنَّ فِي ذَلِكَ
لَذِكْرًا لِّأُولِي الْأَلْبَابِ﴾ (الزمر: ٢١)

(الزمر: ٢١)

And do they see that We do drive rain

to parched soil (bare of herbage), and produce therewith crops, providing food for their cattle and themselves? Have they not the vision?

(Q: S. 32, al-Sajdah, 27).

And the earth, moreover, hath He extended (to a wide expanse); He draweth out there-from its moisture and its pasture.

(Q: S. 79, al-Nāzi'āt, 30,31).

And who bringeth out the (green and luscious) pasture, and then doth make it (but) swarthy stubble.

(Q: S. 87, al-'A'lā, 4, 5).

He who has made for you the earth like a carpet spread out; has enabled you to go about therein by roads (and channels); and has set down water from the sky. With it have We produced diverse pairs of plants, each separate from the others.

(Q: S. 20, Ṭaha, 53).

It is He who sendeth down rain from the skies; with it We produce plants of all kinds: from some We produce green (crops), out of which We produce grain, heaped up (at harvest); out of the date palm and its sheaths (or spathes) (come) clusters of dates hanging low and near: and (then there are) gardens of grapes, and olives, and pomegranates, each similar (in kind) yet different (in variety): when they begin to bear fruit, feast your eyes on the fruit and the ripeness thereof. Behold! In these things there are signs for people who believe.

(Q: S. 6, al-'An'ām, 99).

﴿أَوَلَمْ يَرَوْا أَنَّا سَوَّيْنَا إِلَى الْأَرْضِ الْجُرْزَ
فَنَخْرِجُ بِهِ زَرْعًا كُلُّ مِنْهُ نَاعِمٌ وَإِنَّمَا أَنفُسُهُمْ
أَفَلَا يَصْخَرُونَ﴾.

(السجدة: ٢٧)

﴿وَالْأَرْضُ بَعْدَ ذَلِكَ دَحْنًا أَخْرَجَ مِنْهَا مَاءَهَا وَمَرْعًا﴾.

(النازعات: ٣٠، ٣١)

﴿وَالَّذِي أَخْرَجَ الْمَرْعَىٰ فَجَعَلَهُ غُثَاءً أَحْوَىٰ﴾.

(الاعلى: ٤، ٥)

﴿الَّذِي جَعَلَ لَكُمُ الْأَرْضَ مَهْدًا وَاسْلَكَ لَكُمْ فِيهَا
سُبُلًا وَأَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجْنَا بِهِ أَزْوَاجًا مِنْ
نَبَاتٍ شَتَّىٰ﴾.

(طه: ٥٣)

﴿وَهُوَ الَّذِي أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجْنَا بِهِ
نَبَاتَ كُلِّ شَيْءٍ فَأَخْرَجْنَا مِنْهُ خَضِرًا نُخْرِجُ مِنْهُ
حَبًّا مُتَرَاكِبًا وَمِنَ النَّخْلِ مِنْ طَلْعِهَا قِنْوَانٌ دَانِيَةٌ
وَجَنَّاتٍ مِنْ أَعْنَابٍ وَالزَّيْتُونَ وَالرُّمَّانَ مُشْتَبِهًا وَغَيْرَ
مُتَشَبِهٍ انْظُرُوا إِلَى ثَمَرِهِ إِذَا أَثْمَرَ وَيَنْعِهِ إِنَّ فِي ذَٰلِكُمْ
لَآيَاتٍ لِّقَوْمٍ يُؤْمِنُونَ﴾.

(الانعام: ٩٩)

These Holy 'Āyas link the falling of rain from the skies and the fruition of the plants in the earth. This is a regular and recurrent phenomenon, familiar to all men, but the role of water in the creation of the plant and its growth and the biological and physiological processes involved are relatively recent scientific advances. In this introduction, we are not concerned with this role, because we would be unable to do justice to all of its implications, and for fear that we may move too far afield. Undoubtedly, however, it remains a topic of study.

In the above 'Āyas, the Creator (may He be exalted) speaks of His power and that He brings forth the plant from the earth. Bringing forth the plant from the earth is a form of rejuvenation. Allah, whose words are ever most glorious, says:

A sign for them is the earth that is dead: We do give it life, and produce grain therefrom, of which ye do eat.

(Q: S. 36, Yāsīn, 33). (يس: ٣٣)

﴿وَأَيُّ آيَةٍ لَهُمُ الْأَرْضُ الْمَيِّتَةُ أَحْيَيْنَاهَا وَأَخْرَجْنَا مِنْهَا حَبًّا فَمِنْهُ يَأْكُلُونَ﴾

Second: 'Āyas where *khurūj* خروج implies resurrection or rejuvenation:

Khurūj in the sense of restoration, resurrection, and rejuvenation appears on seven occasions in the Holy Qur'ān. Allah the Most Sublime says:

The day when they will hear a (mighty) blast in (very) truth: that will be the day of resurrection.

(Q: S. 50, Qāf, 42). (ق: ٤٢)

﴿يَوْمَ يَسْمَعُونَ الصَّيْحَةَ بِالْحَقِّ ذَلِكَ يَوْمُ الْخُرُوجِ﴾

And among His signs is this, that heaven and earth stand by His command: then when He calls you, by a single call, from the earth, behold, ye (straight a way) come forth.

(Q: S. 30, al-Rūm, 25). (الروم: ٢٥)

﴿وَمِنْ آيَاتِهِ أَنْ تَقُومَ السَّمَاءُ وَالْأَرْضُ بِأَمْرِهِ ثُمَّ إِذَا دَعَاكُمْ دَعْوَةً مِنَ الْأَرْضِ إِذَا أَنْتُمْ تَخْرُجُونَ﴾

The unbelievers say: What! when we become dust, we and our fathers – shall

﴿وَقَالَ الَّذِينَ كَفَرُوا آءِذَا كُنَّا تُرَابًا وَءَابَاؤُنَا﴾

we really be raised (from the dead)?

(Q: S. 27, al-Naml, 67). (النمل: ٦٧)

أَيُّنَا لَمُخْرَجُونَ ﴿٦٧﴾

Does He promise that when ye die and become dust and bones, ye shall be brought forth (again)?

(Q: S. 23, al-Mu'minūn, 35). (المؤمنون: ٣٥)

﴿أَبَعِدْكُمْ أَنْكُمْ إِذَا مِتُمْ وَكُنْتُمْ تَرَابًا وَعِظْلَمًا أَنْكُمْ تُخْرَجُونَ﴾

He said, therein shall ye live, and therein shall ye die; but from it shall ye be taken out (at last).

(Q: S. 7, al-'A'rāf, 25). (الأعراف: ٢٥)

﴿قَالَ فِيهَا تَحْيَوْنَ وَفِيهَا تَمُوتُونَ وَمِنْهَا تُخْرَجُونَ﴾

From the (earth) did We create you, and into it shall We return you, and from it shall We bring you out once again.

(Q: S. 20, Tāha, 55). (طه: ٥٥)

﴿فِيهَا خَلَقْنَكُمْ وَفِيهَا نُعِيدْكُمْ وَمِنْهَا نُخْرِجْكُمْ تَارَةً أُخْرَى﴾

We may note that the last 'Āyah appears immediately after the 'Āyah in which Allah the Most Sublime says:

With it [water] have We produced diverse pairs of plants, each separate from the others.

(Q: S. 20, Tāha, 53). (طه: ٣٥)

﴿فَأَخْرَجْنَا مِنْهُ أَزْوَاجًا مِنْ نَبَاتٍ شَتَّى﴾

Allah the All-Perfect and the Most Sublime says:

And Allah has produced you from the earth, growing (gradually). And in the end He will return you into the (earth), and raise you forth (again at the resurrection)?

(Q: S. 71, Nūḥ 17,18). (نوح: ١٧ ، ١٨)

﴿وَاللَّهُ أَنْبَتَكُمْ مِنَ الْأَرْضِ نَبَاتًا ثُمَّ يُعِيدْكُمْ فِيهَا وَيُخْرِجْكُمْ إِخْرَاجًا﴾

Third: 'Āyas that link plants to the concepts of resurrection and rebirth:

These 'Āyas appear in three sūras of the Holy Qur'ān, and join the concept of the flowering of the plant with resurrection and rebirth. They unequivocally affirm these similarities. Allah the Most Exalted says:

It is He who sendeth the winds like heralds of glad tidings, going before His mercy: when they have carried the heavy-laden clouds, We drive them to a land that is dead, make rain to descend thereon, and produce every kind of harvest therewith: thus shall We raise up the dead: perchance ye may remember.

(Q: S. 7, al-'A'raf, 57). (الاعراف: ٥٧)

﴿وَهُوَ الَّذِي يُرْسِلُ الرِّيحَ بُشْرًا يَنْزِلُ بِرَحْمَتِهِ حَتَّى إِذَا أَثْقَلَتِ السَّحَابُ ثِقَالًا سَقَطَتْ مِنْهُ لِبَدٌ مَّيِّتٌ فَأَنْزَلْنَاهُ أَلْمَاءً فَخَرَجْنَا بِهِ مِنْ كُلِّ الثَّمَرَاتِ كَذَلِكَ نُخْرِجُ الْمَوْتَى لَعَلَّكُمْ تَذَكَّرُونَ﴾

That sends down (from time to time) rain from the sky in due measure, and We raise to life therewith a land that is dead; even so will ye be raised (from the dead).

(Q:S. 43, al-Zukhruf, 11). (الزخرف: ١١)

﴿وَالَّذِي نَزَّلَ مِنَ السَّمَاءِ مَاءً يَقْدَرُ فَأَنْشَرْنَا بِهِ بَلَدَةً مَيِّتًا كَذَلِكَ نُخْرِجُ الْحَيَّ مِنَ الْمَيِّتِ﴾

Linking germination with rebirth is brought home to us by the following 'Āyas.

And We send down from the sky rain charged with blessing, and We produce therewith gardens and grain for harvests; And tall (and stately) palm trees, with shoots of fruit stalks, piled one over another as sustenance for (Allah's) servants – And We give (new) life therewith to land that is dead: thus will be the resurrection.

(Q: S. 50, Qāf, 9-11). (ق: ٩ - ١١)

﴿وَنَزَّلْنَا مِنَ السَّمَاءِ مَاءً مُبَارَكًا فَأَنْبَتْنَا بِهِ جَنَّاتٍ وَحَبَّ الْحَصِيدِ وَالنَّخْلَ بَاسِقَاتٍ لَهَا طَلْعٌ نَضِيدٌ رِزْقًا لِلْعِبَادِ وَأَحْيَيْنَا بِهِ بَلَدَةً مَيِّتًا كَذَلِكَ الْخُرُوجُ﴾

Fourth: 'Āyas which refer to the bringing forth of the living from the dead, and the dead from the living:

These 'Āyas illustrate the power of the Creator, the Maker, and the Shaper (may He be Most Exalted) in bringing forth life from what is dead, and injecting the Divine Secret into non-living constituents to produce constituents pulsing with life.

Allah the Most Exalted says:

It is He who brings out the living from the dead, and brings out the dead from the living, and who gives life to the earth after it is dead; and thus shall ye be brought out (from the dead).

﴿يُخْرِجُ الْحَيَّ مِنَ الْمَيِّتِ وَيُخْرِجُ الْمَيِّتَ مِنَ الْحَيِّ وَيُحْيِي الْأَرْضَ بَعْدَ مَوْتِهَا وَكَذَلِكَ تُخْرَجُونَ﴾

(Q: S. 30, al-Rūm, 19). (الروم: ١٩)

Still in the context of the creation and rejuvenation, in the 'Āyah which follows the above, Allah the All-Perfect and the Most Sublime says:

Among His signs is this, that He created you from dust; and then – behold, ye are men scattered (far and wide!).

﴿وَمِنْ آيَاتِهِ أَنْ خَلَقَكُمْ مِنْ تُرَابٍ ثُمَّ إِذَا أَنْتُمْ بَشَرٌ تَنْتَشِرُونَ﴾

(Q: S. 30, al-Rūm, 20). (الروم: ٢٠)

The Qur'ānic 'Āyah in **al-'An`ām sūrah** associates the germination and growth of plants with the issuance of the living from the dead and the dead from the living. Allah the Almighty and the Most Exalted, says:

It is Allah who causeth the grain and the date stone to split and sprout. He causeth the living to issue from the dead, and He is the One to cause the dead to issue from the living, that is Allah: then how are ye deluded away from the truth?

﴿إِنَّ اللَّهَ فَالِقُ الْحَبِّ وَالنَّوَى ۖ يُخْرِجُ الْحَيَّ مِنَ الْمَيِّتِ وَيُخْرِجُ الْمَيِّتَ مِنَ الْحَيِّ ۚ ذَٰلِكُمْ اللَّهُ فَأَنَّى تُؤْفَكُونَ﴾

(Q: S. 6, al-'An`ām, 95). (الأنعام: ٩٥)

Our study of the processes whereby living constituents in the body of the plant are formed from simple non-living constituents and the decomposition of plants as well as all other organisms into their original non-living state helps us comprehend these Holy "Āyas. It is true that scientists have succeeded in discovering the chemical, biological, and physiological courses taken in the formation of living matter from non-living components. However, they are still and will always be unable to understand the Divine Secret of the infusion of life into these components.

Fifth: germination, the emergence of plants – death and decomposition as viewed by modern science:

We will attempt to present these processes as viewed by science as briefly and as non-technically as possible. This will help us realize the Divine Miraculous Power before which all mortal knowledge stands helpless in acknowledgment of Allah the One and Only, the All-Subduer.

When discussing germination, we need to add a short note on the structure of the seed. The most important of the components of the seed are the embryo, made up of a plumule that produces the shoot system of the plant, a radicle which usually produces the root system, and one or two cotyledons which may store food reserves. Food reserves may also be stored outside the cotyledons in what is known as the endosperm. Stored matter may be carbohydrates, proteins or fats, or all combined in ratios that differ from one species to another. The seed is covered by a coat (testa) which has a hole (micropyle) through which water flows into the seed during germination. The size of the seed varies: it may be large, or very tiny. Inside the seed, there is a viable embryo. In it, chemical and biological processes are at their lowest level for lack of sufficient moisture. The seed remains in that state for periods that vary according to plant species until such time as the correct conditions for germination are met. Then the process of germination begins. This takes the form of consecutive stages, the first of which is water absorption, which causes the seed to swell and to split its coat. The water promotes a series of chemical processes including the activation of enzymes, necessary to break down the stored matter into a form on which the embryo feeds so that its cells continue to divide and grow. This leads to the appearance of the radicle and the plumule.

If the germinating seed is left in the dark, it will grow to a degree proportional to the quantity of stored food. The plumule and the leaves it has produced turn pale, yellow, and growth ends. The stored matter is consumed as a result of respiration. Although the plant may continue to be supplied with water and dissolved inorganic

substances, it will eventually die. Thus, germination will not be successful (producing a mature plant which flowers and produces fruit) unless the stem protrudes from the surface of the ground and becomes exposed to light.

Here begins the most remarkable process which takes place on earth. That is, the making of the chlorophyll and green plastids, and the process of photosynthesis. The green plastids are cytoplasmic organelles with an intricate geometrical structure, which Allah has granted the ability to make use of light energy, the most important source of which is the sun, as well as the ability to convert this energy into chemical energy. The exposure of the green plant to sunlight for a period less than a fraction of a second causes the plastids and their chlorophyll to become operational. Without entering into scientific details, it is difficult for man to imagine the existence or the initiation of life without absorption of radiant energy and its conversion into chemical energy. The absorption of energy and its related processes lead to the conversion of carbon dioxide and water into carbohydrates, which are one of the energy sources for the cell, and which form the raw material for the production of protein, fat, and other plant components, with oxygen released as a by-product.

In addition to carbon dioxide absorbed by the plant from the air or from water, and the water it absorbs from its environment, the plant absorbs inorganic elements and compounds from water. It follows that most of what the plant draws in from its environment is non-organic. Nevertheless, these elements and components become incorporated with the carbohydrates resulting from photosynthesis through various complex processes leading eventually to the formation of the living mass of the plant body. Then, these plants which we may or may not see with the naked eye are merely masses of living matter - the protoplasm and its constituents. The creation of this living matter from non-organic material continues in the plant ceaselessly. This may be observed simply through the growth of the plant, as evidenced by the increase in its weight and size, which represents additions by the creation of living matter in the body of the plant from non-living sources. Although we are able to observe the results, and in spite of our knowledge of some of the pathways taken by the process, i.e. the creation and the infusion of life, the breathing of life into these components remains the inscrutable Divine Secret. Although modern science has succeeded in manufacturing and constructing some organic compounds from inorganic components, it stands impotent when it comes to endowing them with life.

Rainfall and plant germination, blossoming and fruition are processes in which man plays no part; he merely sees and feels them. He may prepare the soil for the seeds, and he may also water and look after them. However, the pathways of the reactions,

the making of matter in the plant body, and the building up of the living mass in the plant are matters only in the hands of the Creator and the All-Capable.

The connection between the infusion of life into plants and the concept of resurrection may emanate from the special nature of plants, bestowed on them by Allah. They are the only creations which Allah has endowed with the capability of forming their living body from components which are inanimate and inorganic. This is known as autotrophism (self-feeding). All other living organisms which do not contain chlorophyll are mostly heterotrophs, i.e. they obtain their energy-containing food ready-made from other living beings.

All plants, animals, and people are predestined to perish. The causes of death are various, but the outcome is the same. When the organic bodies of the creations die, the processes of decomposition begin, through the means of various kinds of micro-organisms which Allah has given the capability of secreting various types of enzymes. These enzymes break down carbohydrates, fats, and proteins. The outcome of the decomposition of any organism includes the release of carbon dioxide into the atmosphere, water which returns to the soil or air, and some ash which is made of the inorganic components that the plant had initially drawn in from the soil and which was transmitted from plants to animal or man through food intake.

Thus, matter is cycled from the surrounding environment to the plant, and is then returned to the environment. The cycle may become longer: it may involve the body of one creature (animal or man) or more, until it goes back to the environment. The cycle of matter such as that of carbon, oxygen, nitrogen, phosphorous and sulphur proves that the decomposition of the living produces non-living matter.

In this way is revealed the miraculous nature of the Holy Qur'ān: more than fourteen centuries ago, it presented insights then unknown to man, many aspects of which are still unknown to him. The association of the infusion of life with issuance and resurrection are matters that secular science has taken no account of, although many Holy 'Āyas have confirmed this link and aligned the initiation of plants and the resurrection of man. We faithfully implore Allah the Almighty that our study may bring enlightenment and remembrance to each and every of His obedient servants.

PLANTS OF ALL KINDS

With it (water) We produce plants of all kinds.

﴿فَأَخْرَجْنَا مِنْهُ نَبَاتَ كُلِّ شَيْءٍ﴾

(Q: S. 6, al-ʿAnʿām, 99). (الأنعام: ٩٩)

Al-ʿAnʿām sūrah includes some Holy ʾĀyas in which plants are mentioned in the context of the explanation of Divine Attributes, the power of Allah the All-Perfect and Most Sublime and His Inestimable Creation, may He be Exalted. Earlier, we mentioned,

It is Allah who causeth the grain and the date stone to split and sprout. He causeth the living to issue from the dead, and He is the One to cause the dead to issue from the living. That is Allah; then how are ye deluded away from the truth?

﴿إِنَّ اللَّهَ فَالِقُ الْحَبِّ وَالنَّوَىٰ ۖ يُخْرِجُ الْحَيَّ مِنَ الْمَيِّتِ وَيُخْرِجُ الْمَيِّتَ مِنَ الْحَيِّ ۚ ذَٰلِكُمْ اللَّهُ ۚ فَآفَىٰ تَوَفَّكُونَ ۖ﴾

(Q: S. 6, al-ʿAnʿām, 95). (الأنعام: ٩٥)

In this section, we will mention another Holy ʾĀyah:

It is He who sendeth down rain from the skies; with it We produce plants of all kinds: from some We produce green (crops), out of which We produce grain, heaped up (at harvest); out of the date palm and its sheaths (or spathes) (come) clusters of dates hanging low and near: and (then there are) gardens of grapes, and olives, and pomegran-

﴿وَهُوَ الَّذِي أَنزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجْنَا بِهِ نَبَاتَ كُلِّ شَيْءٍ فَأَخْرَجْنَا مِنْهُ خَضِرًا مُّخْرِجًا مِنْهُ حَبًّا مُتَرَاكِبًا وَمِنَ النَّخْلِ مِنْ طَلْعِهَا قِنْوَانٌ دَانِيَةٌ وَجَنَّاتٍ مِنْ أَعْنَابٍ وَالزَّيْتُونَ وَالرُّمَّانَ﴾

ates, each similar (in kind) yet different (in variety): when they begin to bear fruit, feast your eyes on the fruit and the ripeness thereof. Behold! In these things there are signs for people who believe.

(Q: S. 6. al-'An`ām, 99). (الأنعام: ٩٩)

مُسْتَبْهَاتٍ وَغَيْرِ مُتَشَبِّهٍ انْظُرُوا إِلَى ثَمَرِهِ إِذَا أَثْمَرَ
وَيَنْجَعُ إِنِّ فِي ذَلِكَ لَآيَاتٍ لِّقَوْمٍ يُؤْمِنُونَ ﴿٩٩﴾

In compliance with His injunction, the **All-Perfect** and Most Sublime, that His `Āyah should be well contemplated, the following `Āyah appears after another in which Allah the Most Glorious says:

And it is He who hath produced you from a single person; there is a place of sojourn and a place of departure: We detail our signs for people who understand.

(Q: S. 6. al-'An`ām, 98). (الأنعام: ٩٨)

﴿وَهُوَ الَّذِي أَنْشَأَكُمْ مِنْ نَفْسٍ وَاحِدَةٍ فَمُسْتَقَرٌّ
وَمُسْتَوْدَعٌ قَدْ فَصَّلْنَا الْآيَاتِ لِقَوْمٍ يَفْقَهُونَ﴾ ﴿٩٨﴾

This `Āyah and the previous ones together present the evidence for the Divinity of Allah and the Godliness of His reality. In the `Āyah we are concerned with, it should be evident that the order appearing in the context of the `Āyah, sending rain from the skies, the production of all kinds of plant, the production of green crops, etc. can only be accomplished by the Creator and Life-Giver, who created those things and who knows their secrets and their essence.

Water fulfills a role assigned by Allah, who made every living thing from water. In sending water from the sky, Allah has produced plants of all kinds. What Allah brings out of the soil after rainfall can never be calculated or known, except by Allah. Modern science-with which Allah has endowed mankind-has led man to knowledge of hundreds of thousands of plants species. However, there are many others which we continue to discover. This applies to plants which are visible to the naked eye. Then, what of the miniscule types of plant organisms made up of only one cell or more and which may only be seen through the microscope? We may understand «plants of all kinds» as all that which grows and issues from the earth after irrigation.

If we continue to read the Holy `Āyah, we find that production of all plants stands

for the most general. Then, Allah refers specifically to another group of plants. The Almighty says:

From some We produce green (crops).

(Q: S. 6. al-'An'ām, 99).

(الأنعام: ٩٩)

﴿فَأَخْرَجْنَا مِنْهُ خَضِرًا﴾

In the beginning, Allah produced plants of all kinds with water, and this is followed by "from some We produce green crops", because not all that is produced is green, and not every plant that issues from the earth contains chlorophyll. The plants of all kinds which Allah produces with water implies all created plants, large and small. For example, fungi such as truffles and mushrooms are created plants which issue from the earth through spores invisible to the naked eye, and produce a smooth-skinned and delicious food.

There are thousands of species of fungi and other plants which do not contain chlorophyll. These are not self-feeding; they rely on others and live as saprophytes on non-living organic matter, or as parasites on other organisms. There is also a group of higher plants that grows, blooms and reaches fruition without chlorophyll. These are plants that live parasitically on others, such as dodder الحامول (Lat. *Cuscuta*) which parasitizes on clover and alfalfa, broomrape الهالوك (Lat. *Drobanche*), a parasite on beans, and *Cistanche* الذؤنون and *Cynomorium* الطرنوث which live on several kinds of wild plants. These parasitic plants do not produce their own food like green plants, but depend on what has been prepared by other plants. This leads us to understand "plants of all kinds" as everything that is produced by Allah from soil, water, and air. This includes all members of the plant kingdom, from the one-celled organisms to the most gigantic of trees. If we consider the words of Allah, the Most Sublime – "with it We produce plants of all kinds" – we find that there is no indication of plant production from the earth alone. The purpose is to reiterate the emergence of plants by water. Plant production may occur in the earth, water, or air, as applies to all forms of plants.

We pursue our analysis of the Holy 'Āyah. Allah the Most Exalted says «from some We produce green crops». Clearly, "green crops" stand for part of a whole, i.e. green plants which form part of the plant kingdom that Allah describes as "plants of all kinds". Allah the Most Sublime has endowed the species of green plants with the ability to form their food from simple elements that He has made available to them in the air, water, and soil.

Not all green plants yields grain or seed, as is the case with mosses, lichens, and ferns that have their own methods and types of reproduction.

Perhaps the injunction of Allah, the All-Perfect and Most Sublime, to consider the fruits as they form and ripens would help us to see how the greenness of the unripe fruit changes into other colours that enable us to differentiate among the various strains and kinds. The greenness of the unripe fruit results from the presence of green plastids. These are living organelles that may only be seen under the microscope and whose internal structure cannot be seen except with an electron microscope. They contain chlorophyll. With the power of Allah, the All-Perfect and the Most Sublime, they change into coloured plastids when the fruit ripens, producing colours of magnificent variety. This is an irreversible process. The change in colour into red, yellow or orange which accompanies the ripening of the fruit involves several complex chemical and biochemical processes. All of the following processes which appear in the text of this Holy **Āyah** are signs for the one who would believe: bringing down the rain from the heavens; bringing forth all kinds of plants, large and small, everywhere in the biosphere, favouring some plants with greenness but not others, producing grain from some green plants, the issuance of types and strains of plants that are similar in certain characteristics and dissimilar in others; and the Divine injunction to consider their yield when ripe, and to observe the differences among those which may look alike.

In **Āyah** 141 (al-ʿAnʿām) of the same **sūrah**, the Holy Qurʾān again deals with plants, but in a form different from the previous **Āyah** (99). Allah, the Most Sublime, says:

It is He who produceth gardens^(*) with trellises and without, and dates and plants with produce of all kinds, and olives and pomegranates, similar (in kind) and different (in variety). Eat of their fruit in their season, but render the dues that are proper on the day that the harvest is gathered. But waste not by excess: for God loveth not the wasters.

﴿وَهُوَ الَّذِي أَنْشَأَ جَنَّاتٍ مَّعْرُوشَاتٍ وَغَيْرَ
مَّعْرُوشَاتٍ وَالنَّخْلَ وَالزَّرْعَ مُخْتَلِفًا أُكْلُهُ
وَالزَّيْتُونَ وَالرُّمَّانَ مُتَشَابِهًا وَغَيْرَ مُتَشَابِهٍ
كُلُوا مِنْ ثَمَرِهِ إِذَا أَثْمَرَ وَآتُوا حَقَّهُ يَوْمَ
حَصَادِهِ وَلَا تُسْرِفُوا إِنَّكُمْ لَا يُحِبُّ
الْمُسْرِفِينَ﴾

(Q: S. 6. al-ʿAnʿām, 141). (الأنعام: ١٤١)

This calls upon us to thank Allah for these bounteous blessings, and urges us to render alms and to shun wastefulness. The context of this **Āyah** and the manner in

* "groves" may be a more appropriate interpretation as it connotes fruit-bearing trees, whereas "garden" generally refers to ornamental plants.

which it arranges the plants – together with its conclusion – exhorts us to abase ourselves before Allah, the All-Perfect and the Most Sublime. The Holy Qurʾān mentions the creation of the groves, offers examples of fruit-bearing plants, orders us to eat their fruit, and to «render the dues that are proper» and not to be wasteful. Here, the subject differs from that in the previous ʿĀyah (al-ʿAnʿām, 99). There is no mention of "plants of all kinds", because that implies both fruit-bearing and non-fruit-bearing plants. It also includes edible and inedible plants. The reference to fruit in this ʿĀyah is unambiguous, which is why it refers only to those in the groves: grapes, dates, olives, and pomegranates, which all bear edible fruit.

The first ʿĀyah (99) includes the growth of all plants of all kinds, and an injunction to consider, reflect, and contemplate. The other ʿĀyah (141) only refers to what is edible; hence, the injunction to eat their fruit and be grateful to Allah. Men may view both ʿĀyahs as carrying similar implications; however, the first emphasizes reflection, whilst the second stresses gratitude. The prefatory explanations on each ʿĀyah correspond to the concluding Divine injunctions: consideration, reflection, and the expression of gratitude for Allah's creation of fruit-bearing plants.

In the second ʿĀyah, Allah the Most Sublime describes some plants as "plants with produce of all kinds", and others as "similar (in kind) and different (in variety)".

The difference in ʾukul (eating or the method of preparing prior to eating) may imply difference in taste or difference in the nature of what is being eaten. It may be fresh, dried (like sultanas and dates), cooked or baked. This applies to grapes (groves, with or without trellises), dates, and plant produce. **Mutashābihan wa ghayra mutashābih** ("similar in kind and different in variety") متشابه وغير متشابه implies species and varieties of olives and pomegranates. The shape of leaves and branches in two trees may be similar, but their fruits are different with regard to size, colour, and taste – as evidenced by the variations in some strains and varieties of the same plant species.

LET MAN REFLECT ON HIS FOOD

Allah the All-Perfect and Most Sublime says in the `Abasa sūrah:

Then let man look at his food, (and how We provide it): for that We pour forth water in abundance, and We split the earth in fragments and produce therein grain, and grapes and nutritious plants and olives and dates, and enclosed gardens, dense with lofty trees, and fruits and fodder – for use and convenience to you and your cattle.

(عيس: ٢٤ - ٢٣) (Q: S. 80. `Abasa, 24-32).

﴿ فَلْيَنْظُرِ الْإِنْسَانُ إِلَى طَعَامِهِ ۚ أَنَا صَبَبْنَا الْمَاءَ صَبًّا ثُمَّ شَقَقْنَا الْأَرْضَ شَقًّا فَأَنْبَتْنَا فِيهَا حَبًّا وَعِنَبًا وَقَضْبًا وَرَيْتُونًا وَنَخْلًا وَحَدَائِقَ غُلَبًا وَفَيْكِهِمَ وَأَنَا مُنْعَلِكُمْ ۚ وَلَا تَعْصِمُكُمْ ۚ ﴾

These Holy Āyas were revealed in Mecca, and follow Āyas pertinent to man's origins, his beginnings, death, and resurrection. Allah commands us to consider, reflect on, and contemplate the basic requirement of man's life, i.e. the food which nourishes us. The account of the food cycle is beyond man's capability to imitate. This is not a matter of a search for food or its purchase, but is rather the creation of food and nourishment from simple constituents. It is the creation of organic compounds which contain in their molecules energy supplies which provide men and animals with the sustenance they require. Vegetation is the living machine which Allah has created and endowed with the power to produce what men and animals feed upon. Plants are the creation which Allah has blessed with the capability to produce complex substances from simple ones. But plants cannot survive without water, which is how the story of water begins.

The **ʿĀyas** narrate the story of food, following the Divine injunction to consider it and to contemplate its production. The story begins with "for that We pour forth water in abundance." This is the beginning of the creation of food. The word "**sabbān**" conveys the sense of the gushing copiousness of water. Indisputably, water is the essence of all living things. However, water alone is not sufficient for food production. There must be soil, which is the result of the weathering of the Earth's solid crust. Seeds will not germinate on bare rock, and even if they begin to germinate, they will not complete their lifecycle and produce what they were created for. Thus, Allah the Almighty, the All-Knowing, the Creator and Maker, says in the next **ʿĀyah** (and His are the Most Glorious Words): "and We split the earth in fragments." The rocky crust of the earth will not support vegetation; the power of Allah, the All-Perfect and the Most Sublime, has caused the flowing water to erode and mold the earth's surface, to crack the rock and moisten it. Thus, we see that when water is poured in plenty and the earth is molded, a suitable bed for the seed is created. This cannot take place unless the earth's surface is broken in some manner by the Creator, in order that the soil may become suitable for plant growth. If water is poured but does not penetrate the earth, thus forming a stagnant swamp, the environment in which the water is collected becomes unfit for the emergence and growth of vegetation. If the fissure is too wide, the water will drain away to the deep layers, leaving a layer of dry soil unsuitable for the germination and growth of plants. The Divine Wisdom and Power has split the earth and eroded the rock in due proportion, so that the soil contains particles of varying size and porousness. This renders the soil a favorable bed for seed germination and plant growth. This happens when the pores between the soil particles retain the water against the earth's gravity, holding it in the site where the plant puts down its roots.

Thus, the plant finds a ready supply of water to absorb and thereby to continue its growth, as Allah has willed. What is most wonderful is that the soil particles do not only include capillary pores, but also wide non-capillary pores through which water seeps downwards under the influence of gravity. These wider pores fill with air. The presence of capillary pores is essential for the continuation of plant life: they retain the water and keep the plant supplied, while the non-capillary pores drain the water away a few hours after irrigation or rainfall and preserve the air necessary for root respiration. The balance between the necessary amounts of water and air could never be achieved by man over millions of square kilometers of earth for the plant life we witness. We see, then, that the splitting of the earth in due proportion provides the necessary conditions for plant germination and growth.

Now consider the sequence of **ʿĀyas** and observe how the **ʿĀyah** which comes after "We pour forth water" and "We split the earth in fragments" introduces the

results of these two processes. Allah the Most Exalted says, "and produce therein grain". There can be no question that the germination of seeds and the emergence of plants require certain conditions that cannot be met without water supply and the fragmentation of the earth in due proportion.

Allah, whose power is All Supreme, provides examples of vegetation, and says (His are the Most Glorious of Words): "and produce therein grain and grapes and nutritious plants and olives and dates and enclosed gardens dense with lofty trees and fruits and fodder".

If we examine these examples carefully, we will be absolutely certain that the Sayer of the **ʿĀyas** is a Bounteous God and a Great Creator. What is mentioned in these brief **ʿĀyas** regarding sources of food and nourishment covers all that man needs of foodstuff to maintain his health and life. They include all forms of basic nourishment, including carbohydrates (sugars and starch), proteins (and the amino-acids they break down into), fats and oils. They also include vitamins and minerals and other things needed by man. Among these foodstuffs are grain (the raw material for bread), grapes (the source of energy), and forms of stalk on which animals and man may feed, olives (the source of oil, with all its essential constituents), dates with all the nourishing matter they contain, all plant and fruit products of groves, gardens, and orchards. All these vegetable products represent a level of nutrition through which man feeds on plants. There is also another level, which is animal products. This level would not be possible without fodder, the source of nutrition for herbivorous livestock. The **ʿĀyas** conclude by stating that all of the above foodstuffs are «for use and convenience to you and your cattle».

It is noticeable that the **ʿĀyas** mention only plants, to the exclusion of all other living creation, in relation to the account of food and the injunction to consider it thoroughly. It might be asked: why is there this emphasis on plants, when man depends upon plants, animals, and their products? In answer, we say: whatever the animals and their products we depend on for nutrition, they basically depend upon plant life. Plants form the base of the food pyramid, from which man and livestock benefit. In fact, man rests at the top of this pyramid, making use of all that Allah has created. It must be noted that all the names and forms of plants mentioned, although few in comparison with all the types which Allah has created, represent the wide base of the nutritional pyramid. They include food and medicine for man, and food for livestock.

CREATING EVERY LIVING THING FROM WATER

Do not the unbelievers see that the heavens and the earth were joined together (as one unit of creation), before We clove them asunder? We made from water every living thing.

Will they not then believe?.

﴿أَوَلَمْ يَرِ الَّذِينَ كَفَرُوا أَنَّ السَّمَوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا
وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ أَفَلَا يُؤْمِنُونَ﴾

(الأنبياء : ٣٠). (Q: S. 21. al-'Anbiyā', 30).

This holy 'Āyah touches upon two great issues of creation, magnificent innovation, and miraculousness. The first issue involves the creation of Heaven and Earth. The second is concerned with the important role of water in the making of every living thing. This is the backbone of our present discussion. We undoubtedly realize the importance of water, or at least sense it, although we may not grasp the fundamentals of this importance and the significant role of water in life. In compliance with the Divine order, "see ye the water which ye drink" (Q: S. 56, al-Wāqī'ah, 68), we are concerned here with explaining the constitution of water and the properties Allah has endowed it with to make it the most vital substance in life. Without the combination of water and life, the planet Earth would have remained barren and devoid of living creation, exactly like the moon.

In brief, the dictionary definition of water is "a colourless tasteless odourless transparent liquid, comprising hydrogen and oxygen". This definition does not pay justice to one of the most vital substances which Allah has created. It is certainly a

unique chemical compound, made up of one atom of oxygen and two of hydrogen. The atoms form a triangle at the top of which is the atom of oxygen with a negative charge, and with one positive hydrogen atom at each extremity of the base. The composition of water in this form makes it a unique liquid with respect to its properties and more significant than all other liquids, in many respects.

Water is the essence of life. Protoplasm – the living material in the bodies of all creation – is a suspension of a number of substances. Water is the environment where all kinds of life are initiated. Protoplasm could not exist without water, nor life without protoplasm.

Water is not only the essence of life, but also the habitat of the majority of living creatures; huge numbers of creatures live in water. By the grace of Allah, the All-Perfect and Most Sublime, water has always been a formative agent of the earth's surface, with its mountains, valleys, and plains.

In terms of its properties, water is unique in the chemical world. Some of these properties make water a necessary factor in the cooling of the climate, and in making possible human life and that of all other creation. In the form of vapour, water in the air protects us from the harmful sun radiation during the day, and against the cold of the night atmosphere. Water transfers warmth from the hot areas of the earth to the cold, thus preventing extremes of temperature which are intolerable to man.

Although water is most common in its liquid form, it exists widely in nature in three different forms – solid, liquid, and gaseous. When we drink a tumbler of water (a liquid form), chilled with ice-cubes (a solid form), we notice the condensation of the air humidity (a vapour form) on the outside of the tumbler. Each of these states has a role to play in the maintenance of the life balance on earth. It should also be pointed out that water changes easily from one of its states to another – something which facilitates the cycle through which water is distributed to all parts of the environment in different proportions.

Water has been endowed by Allah with properties that enable it to perform the great function He has assigned to it. Water does not shrink on freezing. Like all other substances, it expands and shrinks under the influence of temperature changes. However, it behaves differently when its temperature falls below 4°C. It expands instead of contracting, which makes its relative density decrease rather than increase. Thus, it becomes lighter, enabling ice to float on the water surface. If it became heavier on freezing, i.e. if it contracted at 0°C, it would sink to the bottom of the rivers, seas, and oceans in winter, and would remain there, where the temperature would not be sufficient to liquefy it – something which would impede the cycle of life

in such milieu. Consider the extent of the loss which would occur if water behaved as other liquids do. This means that the water environment would lose the majority of marine life which Allah the All-Perfect and Most Sublime has permitted to men, particularly because many lakes, seas, and oceans are located in areas where the temperature falls below the freezing point of water in winter.

Water is distinguished from other liquids in terms of its specific heat, i.e. the amount of heat required to raise its temperature by 1°C. The only specific heat which surpasses it is that of ammonia. This characteristic entails an important phenomenon: water cools and heats very slowly, in contrast to the land, which cools and heats very quickly. This gradual temperature change undoubtedly makes water the mildest environment for marine life.

The transparency of water is an important condition for the continuity of life, because it allows light to penetrate to plant life in the seas and oceans, where it reaches the green plastids and enables them to perform their functions in building organic matter. Given that 30% of plant dry matter is formed via chlorophyll-containing marine life, particularly phytoplankton, we may be assured of the importance of water transparency, and the ability of light to penetrate it in order to reach the organisms suspended in the water of the seas and oceans.

Water is one of the most effective solvents of organic and inorganic compounds. This is of great significance because plants extract necessary minerals from the soil in a form dissolved in water. Likewise, food supply passes through organisms dissolved in water, and its presence provides the ideal environment for many reactions occurring inside the organism. No reaction involving any two substances can take place unless in dissolved form. Chemical reactions in organisms are the foundation of the life processes and are essential to their realization. Similarly, chemical reactions in the inanimate world initiate the cycle of minerals through the biosphere.

One of the major properties of water is that it is important to the building of organic materials which results from the process of photosynthesis in plants. Water absorbed by plants is the source of oxygen and hydrogen which contribute to the formation of organic materials and, in consequence, the formation of living protoplasm. Photosynthesis provides all creations with an ever-renewing source of food supply, from which they build their various forms, and draw the energy for their activity. The processes of food conversion in creation at large take place through the major role played by water. It acts either as an environment for these reactions or as a necessary component in them. In photosynthesis, oxygen is emitted as gas into the air or water. We recognize the importance of green plant life in aquaria in providing fish with oxygen. Experiments have shown that the oxygen evolved through photosynthesis is

derived from the water. Thus, the renewal of oxygen in the atmosphere occurs through the agency of green plants, and results from the splitting of water molecules in photosynthesis. Without renewal of the oxygen supply life could not be maintained and without photosynthesis the oxygen in the atmosphere would be depleted in about 2,000 years – a very short period when compared to the span of life on our planet. This confirms that water plays a major part in the formation of the mass of living matter and that it also supplies oxygen to the environment at large.

There is no doubt, then, that the characteristics with which Allah has endowed water – together with its function in biological, chemical, and natural processes – make it clear that from water every living thing is made.

The word "water" and its derivatives are mentioned 63 times in the Holy Qur'ān, in 43 sūras, of which 34 were revealed in Mecca. Several are at a point where mention of water is associated with soil rejuvenation, and we will refer to a few of them here:

The rain which Allah sends down from the skies and the life which He gives therewith to an earth that is dead.

(Q: S. 2, al-Baqarah, 164). (البقرة: ١٦٤)

﴿وَمَا أُنْزِلَ اللَّهُ مِنْ السَّمَاءِ مِنْ مَّاءٍ فَأَحْيَا بِهِ الْأَرْضَ بَعْدَ مَوْتِهَا﴾

And Allah sends down rain from the skies, and gives therewith life to the earth after its death.

(Q: S. 16, Al-Nahl, 65). (النحل: ٦٥)

﴿وَاللَّهُ أُنْزِلَ مِنَ السَّمَاءِ مَاءً فَأَحْيَا بِهِ الْأَرْضَ بَعْدَ مَوْتِهَا﴾

And if indeed you ask them who it is that sends down rain from the sky, and gives life therewith to the earth after its death, they will certainly reply «Allah!».

(Q: S. 29, al-'Ankabūt, 63). (العنكبوت: ٦٣)

﴿وَلَكِنْ سَأَلْتَهُمْ مَنْ نَزَّلَ مِنَ السَّمَاءِ مَاءً فَأَحْيَا بِهِ الْأَرْضَ مِنْ بَعْدِ مَوْتِهَا لَيَقُولُنَّ اللَّهُ﴾

Rejuvenation of the soil is conducive to the growth of vegetation and the issuance of crops and groves, which are processes beyond the ability of man and are all within the power of the Maker, the Supreme Creator, may He be Exalted.

When considering water, it is to be noted that modern science has revealed that the

water molecules which form 70% of the human body and about 90% of that of other creatures, were once part of the clouds, oceans, and ice masses, to which they will return, Allah willing. Their presence in the human body and in the tissues of all creation is but a brief stage in the chain of events which began when Allah created the Earth, whose end is known only by Himself. Although the amount of water in the biosphere is stable it follows several courses within the biosphere collectively known as the water-cycle or the hydrological cycle. The oceans and seas are the main reservoirs, with 97.21% of the Earth's water total, i.e. 1.322.000 km³, according to some estimates. About 875 km³ of ocean and sea water evaporates daily. Most of this, approximately 775 km³, returns to the seas, and the remainder, i.e. 100 km³, is carried by the winds onto the land.

In conclusion, the Holy Qur'anic invocation to contemplate the Divine signs manifested in the blessing of water enlivens the hearts of those moved to submission by Allah, The Truth. It enlightens the minds that free themselves from captivity to traditional imitation. This invocation leads every right-minded individual to believe in the Holy Qur'ān and its message, which is the sealing one.

Here is a call to man from Allah, that he may remember:

And He it is who sends the winds as heralds of glad tidings, going before His mercy, and We send down pure water from the sky.

That with it We may give life to a dead land and slake the thirst of things We have created, cattle and men, in great numbers.

And We have distributed (the water) amongst them, in order that they may celebrate (our) praises, but most men are averse (to aught) but (rank) ingratitude.

(Q: S. 25, al-Furqān, 48-50). (الفرقان: ٤٨ - ٥٠)

وَهُوَ الَّذِي أَرْسَلَ الرِّيحَ بُشْرًا يَكُنْ بِدَى رَحْمَتِهِ
وَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً طَهُورًا لِّنُخْجِيَ بِهِ بَلَدَةً مَيِّتًا
وَنُسْقِيَهُ مِمَّا خَلَقْنَا أَنْعَمًا وَنَاسِيًّا كَثِيرًا وَلَقَدْ
صَرَّفْنَا فِيهِمْ لِيَذَكَّرُوا فَأَبَى أَكْثَرُ النَّاسِ
إِلَّا كُفُورًا .

May You, Allah the Almighty, bestow piety upon our hearts, and guide us by the light of the Qur'ān to the path of faith.

**Plants and Botanic Terms
in the Holy Qur'ān**

﴿أَبْ Abb﴾ (fodder)

Al-‘abb أَبْ is the fodder on which livestock feed. It denotes fresh or dried herbage. It is pasture which is ready for grazing, cutting, or reaping. The word ‘abb may be used to denote all vegetation growing from the soil.

The word ‘abb is mentioned once in the Holy Qur’ān, in the ‘Āyah which appears in the context of the Holy injunction requiring man to consider the food which he eats. Allah the All-Perfect says:

And fruits and fodder for use and
convenience to you and your cattle.

﴿وَفِيهِمْ وَأَبًا مِّنْعَالِكُمْ وَلَا تَقْنَعُوا﴾

(عيس: ٣١ ، ٣٢) (Q: S. 30, ‘Abasa, 31, 32).

The context makes clear that fruits are for human consumption and ‘abb (fodder) for livestock.

‘Abb includes herbs growing in various environments, such as deserts, plains, valleys, and forests. They are eaten by animals and constitute their principal source of nutrition. Just as man relies on certain plants as a nutrition source, he depends on the meat of animals which feed on ‘abb. Vegetation is the first link in the food chain. Animal meat and other animal products would be unavailable without ‘abb as a source of animal nutrition.

﴿أَثْل Athl﴾ (tamarisk)

Singular ‘athalah أَثْل (tamarisk): pl. ‘uthūl, ‘athalāt, meaning tamarisk. ‘Athl is a tree which grows to a height of several metres, and gives long ligneous branches. Instead of leaves, it produces leaf scales. It grows in deserts and saline wet-lands, often in valleys. The surface of the ciliate green branches of the plant bears salts secreted by the plant. ‘Athl and ṭarfā طَرْفَاء belong to the genus *Tamarix*, which is a member of the Tamaricaceae. The Latin name for ‘athl is *Tamarix aphylla*, (L.) Karsten .

‘Athl occurs naturally in N. Africa, the Arabian Peninsula, Afghanistan, Pakistan, and India. It may be planted as a windbreak around farmland in desert areas, on account of the toughness of its trunk and branches and its ability to survive drought conditions.



'Athl

In the **sunnah** books such as Bukhārī, Moslem, and others, mention is made of 'athl and tarfā' in the context of the use of wood in making the **minbar** منبر (pulpit) of Allah's Messenger (PBBUH).

The word 'athl is mentioned once in the Holy Qur'ān, in the following 'Āyah:

And We converted their two garden (rows) into "gardens" producing bitter fruit, and tamarisks, and some few (stunted) trees of Christ thorn.

﴿وَبَدَّلْنَاهُمْ جَنَّتَيْنِ ذَوَاتِ أَكْثِلٍ خَمْطٍ وَأَثَلٍ
وَشَجَرٍ مِّن سِدْرٍ قَلِيلٍ﴾

(Q: S. 34, Saba', 16). (سبأ: ١٦)

This appears after an 'Āyah relating the story of the people of Saba', who lived in a fertile and prosperous region of Yemen, and built a dam behind which they stored

water in the valley. They had a plentiful water supply, and lived prosperously in gardens blessed with fruition which brought them abundant prosperity. When they ceased to think of Allah and left good deeds and righteous conduct, with regard to what Allah had blessed them with, He deprived them of that prosperity and He sent against them a deluge which carried away stones in its torrential power, inundating all things in its path. Following that, no store of water remained. The gardens withered and grew arid, bearing only wild trees: thorny **khamṭ** خَمَط , 'athl whose fruit is inedible and **sidr** سدر (Christ thorn), which bears drupes. These were the best left then – a few, scattered, prickly plants, as Allah the Most Sublime says in the next 'Āyah:

That was the requital We gave them
because they ungratefully rejected
faith.

﴿ذَٰلِكَ جَزَاؤُهُمْ بِمَا كَفَرُوا﴾

(Q: S. 34, Saba', 17). (سبأ: ١٧)

﴿أحوى 'Aḥwā﴾ (swarthy)

'Aḥwā أحوى : darkened with age. Some plants of the Goosefoot family (Chenopodiaceae), assume a darker colour as they age, due to the death of the cortex covering the stem or the death of the leaves due to their accumulation of salt. They grow in areas of pasture-land which are distributed widely throughout saline and desert areas. The word 'aḥwā is mentioned once in the Holy Qur'ān:

And who bringeth out (green and
luscious) pasture, and then doth make
it (but) swarthy stubble.

﴿وَالَّذِي أَخْرَجَ الْمَرْعَىٰ فَجَعَلَهُ غُثَاءً أَحْوَىٰ﴾

(Q: S. 87, al-'A'lā, 4,5). (الأعلى: ٤ ، ٥)

If a plant has been dead and dry for a long period, it becomes swarthy. The stages in the life of the plant are: the bringing out of pasture, the growth and flourishing, drying up and darkening with age.

﴿أَرْض 'Ar d﴾

(earth, soil, land)

The word 'ar d الارض (preceded by "al", i.e. "the"), appears 445 times in the 'Āyas of the Holy Qur'ān, and 15 times without "al". The word has several meanings. It may imply the opposite of sea (baḥr) بحر or sky or heaven (samā') سماء. It also means the soil in which plants grow, or that which is trodden on by the foot. In the context of the study of plants in the Holy Qur'ān, we are concerned with the analysis of its meaning where it appears with plant and crop. This occurs 14 times. Allah the Most Sublime says:

A sign for them is the earth which is dead: We do give it life, and produce grain therefrom of which they do eat.

(Q: S. 36, Yāsīn, 33).

﴿وَأَيُّ آيَةٍ لِّمَنۡ لَّا يَرْجُوَ الْآرِضَ الْمَيِّتَةَ أَحْيَيْنَهَا وَآخَرَجْنَا مِنْهَا حَبًّا فَمِنْهُ يَأْكُلُونَ﴾

(يس: ٣٣)

Glory to Allah who created in pairs all things that the earth produces.

(Q: S. 36, Yāsīn, 36).

﴿سُبْحَنَ الَّذِي خَلَقَ الْأَزْوَاجَ كُلَّهَا مِمَّا تُنْبِتُ الْأَرْضُ﴾

(يس: ٣٦)

And do they not see that We do drive rain to parched soil (bare of herbage), and produce therein crops providing food for their cattle and themselves?).

(Q: S. 32, al-Sajdah, 27).

﴿أَوَلَمْ يَرَوْا أَنَّا نَسُوقُ الْمَاءَ إِلَى الْأَرْضِ الْجُرُزِ فَنُخْرِجُ بِهِ زَرْعًا تَأْكُلُ مِنْهُ أَنْعَامُهُمْ وَأَنْفُسُهُمْ أَفَلَا يُبْصِرُونَ﴾

(السجدة: ٢٧)

The Holy Qur'ān refers to the rejuvenation of the earth:

And Allah sends down rain from the skies, and gives therewith life to the earth after death.

(Q: S. 16, al-Naḥl, 65).

﴿وَاللَّهُ أَنزَلَ مِنَ السَّمَاءِ مَاءً فَأَحْيَا بِهِ الْأَرْضَ بَعْدَ مَوْتِهَا﴾

(النحل: ٦٥)

And among His signs is this: thou seest the earth barren and desolate; but when We send down rain to it, it is

﴿وَمِنْ ءَايَاتِهِ أَنَّا نُرِي الْأَرْضَ خَائِبَةً فَإِذَا أَنزَلْنَا عَلَيْهَا الْمَاءَ﴾

stirred to life and yields increase.
Truly, He who gives life to the (dead)
earth can surely give life to (men) who
are dead.

أَهْرَزَتْ وَرَبَّتْ إِنَّ الَّذِي أَحْيَاهَا لَمُحْيِي الْمَوْتِ ﴿٣٩﴾

(Q: S. 41, Fuṣṣilat, 39). (فصلت: ٣٩)

Know ye (all) that Allah giveth life to
the earth after its death.

اعْلَمُوا أَنَّ اللَّهَ يُحْيِي الْأَرْضَ بَعْدَ مَوْتِهَا

(Q: S. 57, al-Ḥadīd, 17). (الحديد: ١٧)

(See also, Q: S. 26, al-Shu`arā', 7; Q:S. 2. al-Baqarah, 61; Q:S. 13, al-Ra`d, 4; Q: S. 14 Ibrāhīm, 26; Q: S. 19, al-Ḥijr, 19; Q: S. 18, al-Kahf, 45; Q:S. 22, al-Ḥajj, 5; Q: S. 22, al-Ḥajj, 63; Q:S. 50, Qāf, 7; Q: S. 71, Nūḥ 17.)

Rejuvenation of the soil involves fertilizing it and producing new plants from it. The living earth (‘ardun ḥayyah) حية means fertile, as the word jadb جَدَب (aridity) means maytah مَيِّتَة (dead). ‘Aḥyaynā al-‘ard احيينا الأرض : (we produced its vegetation, living and fresh). In the Ḥadīth الحديث (The Prophetic Tradition), the Prophet (PBBUH) says, "He who restores the dead earth to life, is the most fitting to possess it". Al-mawāt الموات : land which has never had a proprietor. Restoring it to life may take the form of enclosing it, cultivating it, or building on it, or the like – as is done when a dead person is brought back to life. In contrast, al-‘ard al-maytah الأرض الميِّتَة (dead earth) is that which bears no plant life. In the Holy Qu`ān the word al-‘ard is qualified by a number of adjectives, such as hāmidah هَامِدَة (lifeless) maytah (dead), qarār قرار (firm), kifāt كِفَات (cf. kifāt), khāshī`ah خَاشِعَة (submissive) and dhalūl ذَلُول (manageable), etc.

﴿ Istaghlaẓ استغلظ ﴾ (to grow thick)

Al-ghilaẓ الغلظ : strengthened toughness. A plant or tree is said to be ‘istaghlaẓ استغلظ when it is about to reach thickness or has already done so. This lexical item appears only once in relation to plant life, when Allah the Most Sublime says:

Like a plant which sends forth its tiller,
then makes it strong; it then becomes
thick, and it stands on its own stem.

﴿ كَرَزِمٌ أَخْرَجَ سَطْعَهُ فَنَازَرَهُ فَاسْتَغْلَظَ فَاسْتَوَى عَلَى
سَوْقِهِ ﴾

(Q: S. 48, al-Fath, 29). (الفتح: ٢٩)

This is also said of all plants and trees when they become firmly rooted (see zarّ زرع , shaṭ' شطء).

Modern botanists are familiar with the phenomenon of secondary thickening, in which new tissues are added to the plant body, whether the stem or the root, wherein some of the tissues have cell walls thickened with lignin. This process takes place as the plant ages in order that a thick enough stem is formed to bear leaves and fruit in trees and shrubs – something which also enables the plant to stand firm against high winds.

﴿أَصْلُ أَشْلٍ﴾

(bottom, base, origin)

Al-ʾaṣl : الأصل : the base of everything, pl. ʾuṣūl. This meaning applies to ʾaṣl in the saying by Allah the Most Sublime:

For it is a tree that springs out of the bottom of hell-fire.

﴿إِنَّهَا شَجَرَةٌ تَخْرُجُ فِي أَصْلِ الْحَجِيمِ﴾

(Q: S. 37, al-Ṣāffāt, 64). (الصافات: ٦٤)

It may also mean the root or origin of something (ʾasās اساس), base or foundation on which it stands, or from which it grows. This applies to the word as it appears in the following ʾĀyas:

Seest thou not how God sets forth a parable? – A goodly word like a goodly tree, whose root is firmly fixed, and its branches (reach) to the heavens.

﴿أَلَمْ تَرَ كَيْفَ ضَرَبَ اللَّهُ مَثَلًا كَلِمَةً طَيِّبَةً كَشَجَرَةٍ طَيِّبَةٍ أَصْلُهَا ثَابِتٌ وَفُرُوعُهَا فِي السَّمَاءِ﴾

(Q: S. 14, Ibrāhīm, 24). (ابراهيم: ٢٤)

And :

Whether ye cut down (O ye Muslims) the tender palm trees, or ye left them standing on their roots.

﴿مَا قَطَعْتُمْ مِنْ لَسَنَةٍ أَوْ تَرَكْتُمُوهَا قَائِمَةً عَلَى أُصُولِهَا﴾

(Q: S. 59, al-Ḥaṣhr, 5). (الحشر: ٥)

﴿أَعْجَازُ﴾

(stump or posterior)

أَعْجَازُ : pl. of أَجْزُ, the posterior of something. أَجْزُ النَّخْلِ **أَعْجَازُ** al-nakhl is the bottom of a palm tree from which the fibrous roots protrude, the foundation which it stands, and the origin from which it grows (see أَشْل). When a palm tree dries up, its base (أَشْل) grows **khāwīyan** خَاوِيًا (hollow), without a core, because the cells of the origin (i.e. the bottom) have withered and lost their water. The dryness and death of the palm tree leave it **khāwīyah** خَاوِيَةً (hollow). This phenomenon occurs when a palm tree is uprooted. There is nothing more hollow than the bottom of a palm tree after it dies, because it has much less wood elements than those found in the bases of the ligneous trees (see **munqa'ir** مُنْقَعِر).

The word أَجْزُ appears twice in the Holy Qur'ān:

Plucking out men as if they were bottoms of palm trees torn up (from the ground).

﴿تَنْزِعُ النَّاسَ كَأَنَّهُمْ أَعْجَازُ نَخْلٍ مُنْقَعِرٍ﴾

(Q: S. 54, al-Qamar, 20). (القمر: ٢٠)

So that thou couldst see the (whole) people lying prostrate (in its path), as if they had been bottoms of hollow palm trees tumbled down!

﴿فَتَرَى الْقَوْمَ فِيهَا صَرْعَى كَأَنَّهُمْ أَعْجَازُ نَخْلٍ خَاوِيَةٍ﴾

(Q: S. 69, al-Hāqqah, 7). (الحاقة: ٧)

These two **Āyas** occur in the context of the account of what befell the people of **Ād** عَاد, who, according to the two **sūras**, were annihilated by the fury of a chill wind, which tore them from the earth, like a palm tree uprooted. **Rīhun ṣarṣar** رِيْحُنْ صَرْصَر : a freezing cold wind. Al-Ṭabarī says, "The wind plucks people up, leaving them like the bottoms of the uprooted palm trees."

﴿أَفْنَانٌ﴾

(varieties, branches,
tips of branches)

The word **ʾafnān** أفنان appears once in the Holy Qurʾān. Allah the Most Sublime, says:

But for such as fear the time when they will stand before (the Judgement seat of) their Lord, there will be two gardens - then which of the favours of your Lord will ye deny? - containing all kinds (of trees and delights).

﴿وَلِمَن حَافَ مَقَامَ رَبِّهِ جَنَّاتٍ فِئَافِئًا لَّا يَدْخُلُهَا نَكَرٌ بَاقٍ
ذَوَاتَا أَفْنَانٍ﴾

(الرحمن: ٤٦ - ٤٨) (Q: S. 55, al-Raḥmān, 46-48).

Some have interpreted **dhawātā ʾafnān** ذواتا أفنان as **dhawātā aghṣān** ذواتا أغصان (containing all kinds of branches); in this case, the singular is **fann** فنن. Others have interpreted it as **dhawātā alwān** ذواتا ألوان (containing all varieties), i.e. **ʾanwāʾ** أنواع or **ḍurūb** ضروب (i.e. kinds). In this case, the singular is **fann**.

Under **fannan**, the Lisān Dictionary reports on the authority of ʾAbu al-Ḥaitham that **funūn** فنون are parts of **aghṣān** (branches), on **shuʿab** شعب (limbs) which are part of the trunk; they are off-shoots, implying off-shoots of a tree. "**Shadhab** شذب is the smaller branch which extends from a main branch". The meanings received from the interpreters مفسرين of posterity revolve around the two meanings. Some of them said **ʾafnān** are the meshing branches of a tree, the tips of tree branches, or the shadow of branches on a wall. In a **Ḥadīth** (Prophetic Tradition) related by al-Tirmidhī about the Divine Arbor in Paradise, it is said that a horseman would ride in the shadow of each branch for a hundred years. Or, he said, a hundred horsemen take shelter in the shadow of each branch. Al-Zamakhsharī (al-Kashshāf: 4/54) say **ʾAfnān** are mentioned in particular. They are the branches extending from the boles of a tree, yielding leaves and fruit. From them, shade is produced and fruit is collected".

Some have said that **dhawātā ʾafnān** means: of varieties or having varieties or comprising varieties; sing. **fann**. Thus, the Arabs say **ʾiftanna fulān fi ḥadithih** إفتن فلان في حديثه, i.e. someone has talked in a diversified way; in other words he uses various forms of speech (al-Ṭabarī: 27/85). **ʾAfnān** may also refer to varieties of Allah's favours – that which the soul aspires to and which the eye is pleased with. Others have said that what is meant is the superiority of the two gardens and their vastness in comparison to all others.

Ibn Kathīr said that there is no contradiction between all these interpretations.

We believe (Allah knows better) that the phrase **dhawātā afnān** ذَوَاتَا أَفْنَانٍ denotes branches that bear colourful flowers and fruit, and the blossoming of flowers and the production of fruit on the branches are a pleasure to the eye. The garden with flowers and fruit gives pleasure to the beholder's eye, and fruit for the hungry.

﴿ أَكَلْ Akl ﴾

(chewing and swallowing)

‘Akl أَكَل means chewing and swallowing. It may be used metaphorically in such instances as ‘akalat al-nāru al-ḥaṭab: iltahamathu التهمت (the fire has eaten the firewood: it has devoured it). ‘Akala fulānu laḥma akhihi = ightābahu إغتابه (somebody ate the flesh of his brother: he gossiped against him behind his back). ‘Akala al-māl: akhadhahu biḥaqq aw biḥayri ḥaqq أخذ به حق أو بغير حق (he ate the money: he took it, rightly or wrongly). ‘Akkāl: the glutton. Al-‘ukul: الأكل that which is eaten.

‘Akl is one of the vital processes. In the Holy Qur’ān, it appears 109 times, in various forms. The one most pertinent to botany, ‘ukul, appears 7 times in the Word of Wisdom. Allah the Most Sublime says:

And the likeness of those who spend their substance, seeking to please Allah and to strengthen their souls, is as a garden, high and fertile; heavy rain falls on it but makes it yield a double increase of harvest.

(Q: S. 2, al-Baqarah, 265). (البقرة: ٢٦٥)

﴿وَمَثَلُ الَّذِينَ يُنْفِقُونَ أَمْوَالَهُمُ ابْتِغَاءَ مَرْضَاتِ اللَّهِ وَتَثْبِيتًا مِنْ أَنْفُسِهِمْ كَمَثَلِ جَنَّةٍ بِرَبْوَةٍ أَصَابَهَا وَابِلٌ فَكَانَتْ أُكْلًا ضِعْفَيْنِ﴾

It is He who produceth gardens with trellises and without, and dates and plants with produce of all kinds.

(Q: S. 6, al-An‘ām, 141). (الأنعام: ١٤١)

﴿وَهُوَ الَّذِي أَنْشَأَ جَنَّاتٍ مَعْرُوشَاتٍ وَغَيْرَ مَعْرُوشَاتٍ وَالنَّخْلَ وَالزَّرْعَ مُخْتَلِفًا أُكْلُهُ﴾

And in the earth are tracts (diverse though) neighbouring, and gardens of vines and fields sown with corn, and palm trees – growing out of single roots

﴿وَفِي الْأَرْضِ قُطْعٌ مُتَجَاوِرَاتٌ وَجَنَّاتٌ مِنْ أَعْنَابٍ وَزَرْعٌ وَنَخِيلٌ صِنَوَانٌ وَغَيْرُ صِنَوَانٍ يُسْقَى بِمَاءٍ وَاحِدٍ﴾

or otherwise: watered with the same water yet some of them We make more excellent than others to eat.

(Q: S. 13, al-Ra'd, 4). (الرعد: ٤)

وَنُفِضِلُ بَعْضَهَا عَلَى بَعْضٍ فِي الْأَكْلِ ﴿٤﴾

The parable of the garden which the righteous are promised beneath which flow rivers: perpetual is the enjoyment thereof and the shade therein.

(Q: S. 13, al-Ra'd, 35). (الرعد: ٣٥)

﴿مَثَلُ الْجَنَّةِ الَّتِي وَعِدَ الْمُتَّقُونَ تَجْرِي مِنْ تَحْتِهَا الْأَنْهَارُ
أُكْلُهَا دَائِمٌ وَظِلُّهَا﴾

Seest thou not how Allah sets forth a parable? A goodly word like a goodly tree, whose root is firmly fixed, and its branches (reach) to the heavens. It brings forth its fruit at all times, by the leave of its Lord.

(Q: S. 14, Ibrahim, 24, 25). (ابراهيم: ٢٤، ٢٥)

﴿أَلَمْ تَرَ كَيْفَ ضَرَبَ اللَّهُ مَثَلًا كَلِمَةً طَيِّبَةً كَشَجَرَةٍ
طَيِّبَةٍ أَصْلُهَا ثَابِتٌ وَفُرُوعُهَا فِي السَّمَاءِ تُؤْتِي
أُكْلَهَا كُلَّ حِينٍ بِإِذْنِ رَبِّهَا﴾

Each of those gardens brought forth its produce and failed not in the least.

(Q: S. 18, al-Kahf, 33). (الكهف: ٣٣)

﴿كُلَّتَا الْجَنَّتَيْنِ ءَانَتْ أَكْلُهَا وَلَمْ تَظَلِمِ قِتْنَهُ شَيْئًا﴾

And We converted their two garden (rows) into "gardens" producing bitter fruit and tamarisks, and some few (stunted) trees of Christ thorn.

(Q: S. 34, Saba', 16). (سبا: ١٦)

﴿وَبَدَّلْنَاهُمْ بِجَنَّتَيْهِمْ جَنَّتَيْنِ ذَوَاتِ أُكُلٍ حَمْطٍ وَأَثَلٍ
وَشَيْءٍ مِنْ سِدْرٍ قَلِيلٍ﴾

'Ukul has been interpreted as that which is eaten, or the edible produce. It has also been used to mean *ṭa'm* (taste) as in the 'Āyas S.6, al-'An'am, 141, and S. 13, al-Ra'd, 4.

﴿أَكْمَامٌ﴾

(containers, vessels, coats,
sheaths, spathes)

Al-kimm الْكِم : the container, vessel, sheath, coat, or spathe: pl. **‘akmām** أَكْمَام.
‘Akmāmu al-zar’ أَكْمَامُ الزَّرْع : the vessels from which the buds or fruits come.
‘Akmām al-nakhl أَكْمَامُ النَّخْلِ : the fronds, fibre or trunk, that cover the core of a palm tree. Before its appearance, the inflorescence of the palm tree is covered with **‘akmām**. Grain is covered by a crust below the awn, called **al-kimm**.

The word **‘akmām** appears in the following **‘Āyah**:

Therein is fruit and date palms,
producing spathes (enclosing dates).

﴿فِيهَا فَدَكِكَةٌ وَالنَّخْلُ ذَاتُ الْأَكْمَامِ﴾

(Q: S. 55, al-Rahmān, 11). (الرحمن: ١١)

The word **‘akmāmiḥā** appears in the following words of the Most Sublime:

No date-fruit comes out of its sheath,
nor does a female conceive (within her
womb) nor bring forth (young), but by
His knowledge.

﴿وَمَا تَخْرُجُ مِنْ ثَمَرَاتٍ مِنْ أَكْمَامِهَا وَمَا تَحْمِلُ مِنْ أُنْثَى
وَلَا تَضَعُ إِلَّا بِعِلْمِهِ﴾

(Q: S. 41, Fuṣṣilat, 47). (فصلت: ٤٧)

We may note the relationship between the emergence of fruits from their sheaths or spathes, and what the female carries and gives birth to. Sheathed fruits are nothing but ovaries whose ovules have been fertilized by pollen and made fruitful. Each fertilized ovule produces a seed, and seeds are contained inside the fruit. All of them are covered by vessels called **al-‘akmām**. The fruition of the plant after fertilizing the ovules in the ovary is comparable to the emergence of the newborn infant from the mother's womb. Neither of these would take place without the knowledge of the Most Exalted, the Creator, and the All-Capable.

﴿Al- 'Aykah الأيكة﴾
(densely intertwining trees)

Al- 'aykah الأيكة refers to densely intertwining trees, which may be **sidr** (Christ thorn), **'arāk** أراك (tooth-brush tree), **'athl** (tamarisk), or **nakhl** (the palm tree): pl. **ayk** أيك. **Al- 'aykah** is found in the Arabian Peninsula in lowlands and valleys, for in these low-lying areas the water and the soil collect. This results in dense growth of vegetation. **Al- 'aykah** may be used to denote a certain place.

In the Holy Qur'ān, the word **'aykah** appears four times in **sūras** revealed in Mecca. In all **'Āyas**, it is associated with the word **'aṣḥāb** أصحاب (owners of, people of). Allah the Most Sublime, says:

And the owners of the wood were also
wrong doers.

﴿وَإِنْ كَانَ أَصْحَابُ الْأَيْكَةِ لَظَالِمِينَ﴾

(Q: S. 15, al-Hijr, 78). (الحجر: ٧٨)

(Also see: Q: S. 26, al-Shu'arā; S. 38, Ṣād, 13; S. 50, Qāf, 14).

Some interpreters of the Holy Qur'ān would favour the identification of **'aṣḥābu Al- 'aykah** as the People of Prophet Shu'ayb (PBUH).

﴿Baṣal بصل﴾
(onion)

Al-baṣal البصل is commonly known; sing: **baṣalah**. It is a biennial species, i.e. it produces stem, leaves, and roots in the first year of its life, whereas the flower, fruit, and seeds only appear in the second year. Thus, its life-span is two years.

The Latin name for "**al-baṣal**" is *Allium cepa* L. It belongs to the family Liliaceae. Among the common properties of the family is the presence of a bulb beneath the soil, the bulb being the base of the cluster of fleshy leaves, which surround the buds. The buds grow on a discoid stem, from the bottom of which come out fibrous roots. The size, colour, and taste of the onion differ according to the strain. It is sown from seed and when fully grown the seedlings are transplanted. To obtain onion seeds, a dry onion is planted and gives a stalk on which flowers appear, to form a globe-like inflorescence. The seeds are formed inside small capsules.

Onion contains volatile sulphurous matter which gives the plant its sometimes offensively pungent odour. Onion is effective against bacteria and microbes, and also acts as a diuretic.



Başal

The word **başal** appears once in the Holy Qur'ān, where Allah the All-Perfect addresses the Israelites as follows:

And remember ye said: "O Moses! we cannot endure one kind of food (always); so beseech thy Lord for us to produce for us of what the earth groweth, - its pot-herbs, and cucumbers, its garlic, lentils and onions". He said: "Will ye exchange the better for the worse?"

(Q: S. 2 al-Baqarah, 61).

وَإِذْ قُلْتُمْ يَا مُوسَىٰ لَنْ نَصْبِرَ عَلَىٰ طَعَامٍ وَاحِدٍ فَادْعُ لَنَا رَبَّكَ يُخْرِجْ لَنَا مِمَّا تُنْبِتُ الْأَرْضُ مِنْ بَقْلِهَا وَقِثَّائِهَا وَفُومِهَا وَعَدَسِهَا وَبَصِلِهَا قَالَ أَتَسْتَبْدِلُونَ الَّذِي هُوَ أَدْفَىٰ بِالَّذِي هُوَ خَيْرٌ

(البقرة: ٦١)

This 'Āyah explains what the Israelites asked Prophet Moses (PBBUH) and upon our Prophet. They requested that he beseech his Lord to produce for them the plants they had been accustomed to in Egypt, such as pot-herbs, cucumbers, garlic, lentils, and onions. It goes without saying that these plants and their contents are incomparable with what Allah made available to them: **manna** as sweet as honey, and **salwā** سلوى which is the quail rich in animal fat and protein. See **baql** بقل (pot-herbs), **qiththā** قثاء (cucumber), **fūm** فوم (garlic), and **adas** عدس (lentil).

Başal has been mentioned in the **Ḥadīth** (Prophetic Traditions); Prophet Mohammad (PBBUH) says, "He who has eaten of garlic or onions should keep himself apart from us and our mosque, and remain at home". The interpreters have stated that this refers to raw and not cooked garlic and onions, on account of the pungent smell. In brief, what the interpreters said is that the **Ḥadīth** does not forbid the eating of onion or garlic, but Islam instructs its followers in the best conduct, that is by refraining from annoying others with malodorous smells, particularly in mosques or at gatherings. In consequence, these may be acceptable religious grounds for leaving the gathering (Fath al-Bārī, : 2/339-344).

﴿Baql بقل﴾ (pot-herbs)

Buqūl بقول is the name given to herb plants on whose uncooked leaves or fruit man may feed. They are ephemerals, and do not flourish for more than a few months.

In botany, the word **buqūl** is used for plants of the Leguminosae family. They bear fruits known as legumes which open by 2 longitudinal valves such as those of the broad bean, green bean, or pea. The first meaning is more comprehensive, since it covers all edible pot-herbs.

Baqala al-shay' بقل الشيء is said when something has emerged. The early Arabs identified **baql** as the tiny plant that grows from seed but leaves behind no stalk for the following season. It may be of interest to mention here that the people of Kuwait use the term **baql** to denote the popular leek.

The word **baql** is mentioned once in the Glorious Revelation. Allah the Most Sublime says:

So beseech thy Lord for us to produce
for us what the earth groweth – its
pot-herbs, and cucumbers, its garlic,
lentils, and onions.

(Q: S. 2, al-Baqarah, 61).

﴿فَادْعُ لَنَا رَبَّكَ يُخْرِجْ لَنَا مِمَّا تُنْبِتُ الْأَرْضُ مِنْ بَقْلِهَا
وَقِثَّائِهَا وَفُومِهَا وَعَدَسِيهَا وَبَصِلِهَا قَالَ﴾

(البقرة: ٦١)

See also **baṣal** (onion), **fūm** (garlic), **qiththā'** (cucumber), and **`adas** (lentil).

﴿تين Tīn﴾

(fig: L. Ficus)

Al-tīn التين is the edible fig, most of which is cultivated in warm temperate regions, including the Mediterranean countries and some areas in the Arabian Peninsula, particularly in Sarāt, where various wild species of *Ficus* grow. The genus *Ficus* includes about 1,000 species: some are edible, such as *Ficus carica* and *Ficus sycomorosa*, and some inedible, planted as street ornamentation, such as *Ficus nitida*, and *Ficus decora*, which is grown indoors. The most common species, whose fruit is eaten either fresh or dried, is *Ficus carica*, which is followed in popularity and importance by *Ficus sycomorosa*. The fig is a member of the Moraceae family.

The edible fig (*Ficus carica*) is a tree or a shrub whose leaves fall in winter and appear in summer, its season of fruition. The edible fruit is a "false fruit". It is primarily a fleshy peduncle (inflorescence stalk) which bears unisexual flowers, the female of which produce tiny nut-like fruits, which we feel when eating the fig.

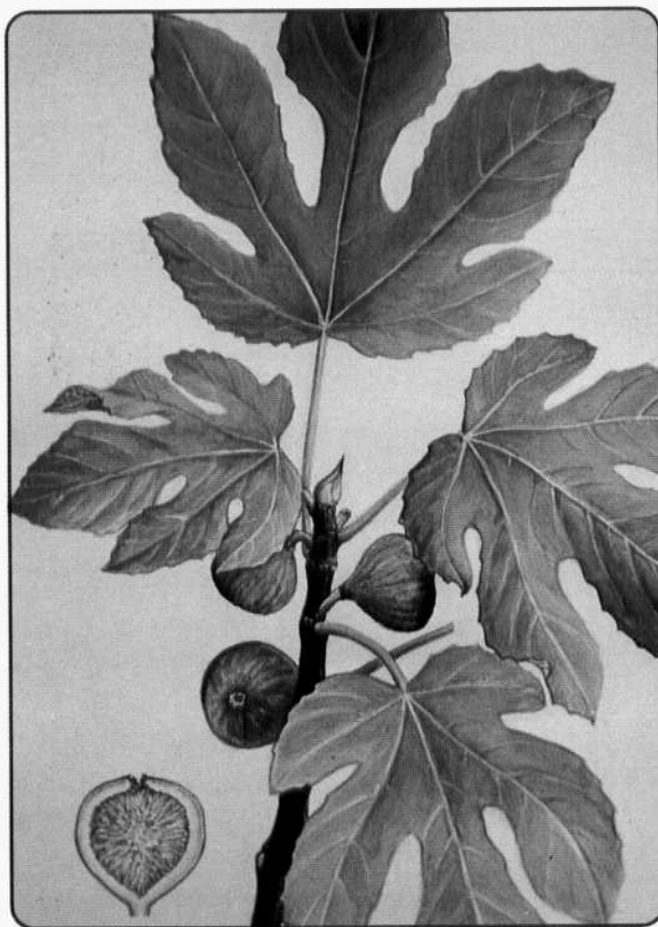
Fig fruit is rich in carbohydrates and some minerals, such as calcium and phosphorus. It contains a good quantity of vitamins A, B, and C, and may be eaten either fresh or dried. There are various strains of fig which differ in colour, size, and taste. The original habitat of fig is the southern region of the Arabian Peninsula.

The word **tīn** appears once in the Holy Qur'ān, at the beginning of the "**tīn**" **sūrah**:

By the fig and the olive.

(Q: S. 95, al-Tin, 1). (التين: ١)

﴿وَالْزَيْتُونِ وَالْأَنْجُونِ﴾



Tīn

In this Holy **ʿĀyah**, Allah the All-Perfect avows, "By the fig and the olive", and in the two succeeding **ʿĀyas** avows, "By the Mount of Sinai", and "This city of security". There are numerous interpretations of **tīn** (fig) and **zaytūn** زيتون (olive), but there is no dispute that **tīn** is what is eaten and **zaytūn** what is pressed. Nevertheless, some interpreters have taken the view that each of them also denotes a certain place or time. It has been said that **tīn** stands for Damascus or its mosque, the mosque of the People of the Cave, or the mosque of Noah on Mount Judi. **Zaytūn** is said to stand for **Baitu al-Maqdis** بيت المقدس (Jerusalem). **Tīn** and **zaytūn** have been said to denote **Baitu al-Maqdis** بيت المقدس where Jesus was entrusted with Allah's Word, **ṭur sinīn** طور سينين (Mount Sinai), where Allah spoke to Moses, and **al-balad al-ʿamīn** البلد الامين (the city of security, i.e. Mecca), where the Seal of all Prophets was entrusted with the Message of Allah. Mention of **tīn** and **zaytūn** may be a reference to certain places or memories pertinent to faith and belief, or to the initiation of man in the best of forms.

﴿ **Thamar** ثمر ﴾
(fruit, produce, offspring)

Thamar ثمر and its derivatives, **’athmar** اثمر, **thamarah** ثمره, and **thamarāt** ثمرات occur 24 times in the Holy Qur’ān. **Thamar** is that which the tree bears; sing: **thamarāh**, pl: **thamarāt**. **Thamar** might also mean money in general, or offspring.

Thamar in the sense of that which a tree bears appears in several **’Āyas**. For instance, Allah the Most Sublime, says:

Feast your eyes with the fruit and the ripeness thereof.

(Q: S. 6 al-’An’ām, 99). (الأنعام: ٩٩)

﴿ انظُرُوا إِلَى ثَمَرِهِ إِذَا أَثْمَرَ وَيَنْعِهِ ﴾ .

Eat of their fruit in their season, but render the dues that are proper on the day that the harvest is gathered.

(Q: S. 6 al-’An’ām, 141). (الأنعام: ١٤١)

﴿ كُلُوا مِنْ ثَمَرِهِ إِذَا أَثْمَرَ وَآتُوا حَقَّهُ يَوْمَ حَصَادِهِ ﴾ .

And sent down rain from the heavens; and brought forth therewith fruits for your sustenance.

(Q: S. 2, al-Baqarah, 22). (البقرة: ٢٢)

﴿ وَأَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجَ بِهِ مِنَ الثَّمَرَاتِ رِزْقًا لَكُمْ ﴾ .

In general, **thamar** may denote the product of any kind, or that which is produced. A harvest or financial return may be identified as **thamaratu al-nabāt** ثمرة النبات (plant produce), and **thamaratu al-juhd wa al-’amali lijam’ al-māl** ثمرة الجهد والعمل لجمع المال (the fruit of labour for earning money). An offspring is described as **thamaratu al-fu’ād** (the fruit of the heart).

Al-thamarah الثمرة may be a fruit: all edible fruits such as grapes, watermelon, apple, dates, pomegranates, fig, etc. are produced by plants, but not all produce is fruit. There are several kinds of plants that yield, but their produce is inedible by man or sometimes also by animal. It may be said that all fruits are yield, but not all yield is fruits (cf. **fākihah** فاكهة). **Thamar** is more comprehensive in its meanings than **fākihah**.

﴿ جذع Jidh` ﴾

(trunk of a tree)

Al-jidh` الجذع is the singular of judhū` al-nakhl جذوع النخل, used to denote the cylindrical part of the palm tree, above the soil surface.

Jidh` appears twice in the Holy Qur`ān. Allah the Most Sublime says:

And the pains of childbirth drove her to the trunk of a palm tree: she cried (in her anguish): "Ah! would that I had died before this!"

﴿ فَأَجَاءَهَا الْمَخَاضُ إِلَى جِذْعِ النَّخْلَةِ قَالَتْ يَلَيْتَنِي مِتُّ قَبْلَ هَذَا ﴾

(Q: S. 19, Maryam, 23). (مریم: ۲۳)

And shake towards thyself the trunk of the palm tree; it will let fall fresh ripe dates upon thee.

﴿ وَهَزَىٰ إِلَيْكَ جِذْعَ النَّخْلَةِ فُسْقُطٌ عَلَيْكَ رَطْبًا جَنِينًا ﴾

(Q: S. 19, Maryam, 25). (مریم: ۲۵)

Judhū` appears only once, when the Pharoah says to the magicians when they declared their belief in the God of Moses.

..., and I will have you crucified on trunks of palm trees.

﴿ وَلَا أَصْلَبَنَّكُمْ فِي جُذُوعِ النَّخْلِ ﴾

(Q: S. 20, Tāha, 71). (طه: ۷۱)

﴿ جُرُز Juruz ﴾

(arid, without vegetation)

A land is described as 'ardun juruz, when it is bare of vegetation, as though it was deserted or deprived of rainfall.

The word appears twice in the Holy Qur`ān. Allah the Most Sublime says:

Verily what is on earth we shall make but as dust and dry soil (without growth or herbage).

﴿ وَإِنَّا لَجَاعِلُونَ مَا عَلَيْهَا صَعِيدًا جُرُزًا ﴾

(Q: S. 18, al-Kahf, 8). (الكهف: ۸)

Here, Allah the All-Perfect describes the fate of the land when it becomes lifeless and barren. He also says:

And do they not see that We do drive rain to parched soil (bare of herbage), and produce therewith crops, providing food for their cattle and themselves? Have they not the vision?

(Q: S. 32, al-Sajdah, 27) . (السجدة: ٢٧)

﴿أَوَلَمْ يَرَوْا أَنَّا نَسُوقُ الْمَاءَ إِلَى الْأَرْضِ الْجُرُزِ فَنُخْرِجُ بِهِ زَرْعًا تَأْكُلُ مِنْهُ أَنْعَامُهُمْ وَأَنْفُسُهُمْ أَفَلَا يُبْصِرُونَ﴾

This is a sign of the kindness and generosity of Allah toward his creation. It also refers to the power of Allah the All-Perfect to raise the dead on the Day of Resurrection.

﴿جنة Jannah﴾

(paradise, grove, garden)

Jannah جنة appears 66 times in the Holy Qur'ān, while **jannāt** جنات appears on 69 occasions. Grammatically, it takes the **muthannā** مثنى (dual number) form, or in **idāfah** إضافة (the genitive case) 8 times, making a total of 143 references.

The word **jannah** occurs in several senses. In most **Āyas**, it means "Paradise in the After-Life".

As regards plants and agriculture in the Holy Qur'ān, **Jannah** sometimes takes the meaning of "orchard", hence **jannāt**, pl. "orchards". The early Arabs used **jannah** for a grove of palm trees. **Jannah**: a garden with palm and other trees, pl. **jinān** جنان. It is specific, and is used for palm trees and other kinds of trees.

In the Holy Qur'ān, it appears with this meaning 14 times. For instance, Allah the Most Sublime says:

It is as a garden, high and fertile; heavy rain falls on it but makes it yield a double increase of harvest.

(Q: S. 2, al-Baqarah, 265). (البقرة: ٢٦٥)

﴿كَمْثَلِ جَنَّةٍ مَرْبُوعَةٍ أَصَابَهَا وَابِلٌ فَتَأْتِ أَكْثَاهَا ضِعْفَيْنِ﴾

He also says:

Does any of you wish that he should have a garden with date palms and vines?

﴿أَبُودُّ أَحَدَكُمُ أَنْ تَكُونَ لَهُ جَنَّةٌ مِّنْ نَّخِيلٍ وَأَعْنَابٍ﴾

(البقرة: ٢٦٦) (Q: S. 2, al-Baqarah, 266).

See also: Q: S.6, al-ʿAnʿām, 99; S. 13, al-Raʿd, 4; S.17, al-ʿIsrāʾ, 91; S.18, al-Kahf, 32-33; S.23, al-Muʾminūn, 19; S.25, al-Furqān, 8; S.34, Sabaʾ, 15-16; S.50, Qāf, 9; S.78, al-Nabaʾ, 16.

﴿جنى أو جنى Janā, Janiyy﴾ (newly ripened)

Al-janā الجنى or al-janiyy الجنى is used for all tree fruit that is harvested. Al-Rāghib says that janā is used for the newly ripened fruit. Each form appears once in the Holy Qurʾān. Addressing Maryam مريم (Mary) (PBUH), Allah the Most Sublime says:

And shake towards thyself the trunk of the palm tree; it will let fall fresh ripe dates upon thee.

﴿وَهُزِّي إِلَيْكِ بِجِذْعِ النَّخْلَةِ تُسْقِطُ عَلَيْكَ رَطْبًا جَنِيًّا﴾

(مريم: ٢٥) (Q: S. 19, Maryam, 25).

See: **Ruṭab**.

In the account of the luxurious life of the inhabitants of Paradise, Allah the Most Sublime says:

They will recline on carpets, whose inner linings will be of rich brocade: the fruit of the Gardens will be near (and easy of reach).

﴿مُتَّكِئِينَ عَلَى فُرُشٍ بَطَائِنُهَا مِنْ إِسْتَرْجٍ وَجَنَى الْجَنَّتَيْنِ دَانٍ﴾

(الرحمن: ٥٤) (Q: S. 55, al-Rahmān, 54).

In other words, the fruits of Paradise are within their reach.

﴿حَبّ ٓحَبّ﴾ (grain)

Al-ḥabb الْحَبّ is used generically for grain or the like found inside the spike or the sheath. **Ḥabb** is commonly used in a variety of phrases: **ḥabbatun min burr** حبة من بُرّ (a grain of wheat), **ḥabbatun min sha`īr** حبة من شعير (a grain of barley), and less commonly **ḥabbatun min `inab** حبة من عنب (a grape).

The word and its derivatives (**ḥabbun** حبّ, **ḥabban** حباً, **ḥabbah** حبة) appear 12 times in the Holy Qur`ān.

Allah the Most Sublime says:

It is Allah who causeth the grain and the date stone to split and sprout.

(Q: S. 6, al-`An`ām, 95). (الأنعام: ٩٥)

﴿إِنَّ اللَّهَ فَالِقُ الْحَبِّ وَالنَّوَى﴾

He also says:

From some We produce green (crops), out of which We produce grain heaped up (at harvest).

(Q: S. 6, al-`An`ām, 99). (الأنعام: ٩٩)

﴿فَأَخْرَجْنَا مِنْهُ خَضِرًا نُّخْرِجُ مِنْهُ حَبًّا﴾

Furthermore, He says:

And if there be (no more than) the weight of a mustard seed, We will bring it (to account): and enough are We to take account.

(Q: S. 21, al-`Anbiyā`, 47). (الأنبياء: ٤٧)

﴿وَإِنْ كَانَتْ مِثْقَالُ حَبَّةٍ مِنْ خَرْدَلٍ أَتَيْنَا بِهَا وَكَفَى بِنَا حَاسِبِينَ﴾

See: **khardal**.

The term is used particularly to denote crops belonging to the grass family (Gramineae), like wheat, barley, corn, rice, and oats, which are grown for their grains, a main nutrition source. The individual grain for these crops is small, with one seed, whose coat coalesces with the fruit wall.

The grain is known to botanists as caryopsis. Carbohydrates, especially starch, form most of the grain. Each grain contains a minute embryo, which develops on germination into a seedling. The embryo consists of a plumule, radicle, and a cotyledon known as the scutellum. The grains are concentrated on spikes and cobs.

﴿ حدائق Hadā'iq ﴾

(orchards, gardens, groves)

Hadā'iq حدائق appears in this plural form three times in the Holy Qur'an.

Allah the Almighty says:

Yea, with it we cause to grow
well-planted orchards full of beauty
and delight.

﴿ فَأَنْبَتْنَاهُ حَدَائِقَ ذَاتَ بَهْجَةٍ ﴾

(Q: S. 27, al-Naml, 60). (النمل: ٦٠)

He also says:

Verily, for the righteous there will be a
fulfillment of (the heart's) desires;
gardens enclosed, and grapevines.

﴿ إِنَّ لِلْمُتَّقِينَ مَفَارِجَ حَدَائِقٍ وَأَعْنَابٍ ﴾

(Q: S. 13, al-Naba', 31, 32). (النبا': ٣١، ٣٢)

Elsewhere, He says:

And produce therein corn, and grapes
and nutritious plants, and olives and
dates, and enclosed gardens, dense with
lofty trees.

﴿ فَأَنْبَتْنَا فِيهَا حَبًّا وَعِنَبًا وَقَضْبًا وَزَيْتُونًا وَنَخْلًا وَحَدَائِقَ غُلَبًا ﴾

(Q: S. 80, 'Abasa, 27-30). (عبس: ٢٧ - ٣٠)

Al-ḥadīqah الحديقة (sing.) is an orchard where fruit or garden trees are cultivated, surrounded by a fence, wall, or some other means of enclosure. Others would define it as a piece of land with palm or other trees. Or, it may be defined as any area of

plantation. It is also defined as any enclosed orchard; if it is not enclosed, it would not be described as **ḥadīqah**.

In the Holy **ʿĀyas** where **ḥadāʾiq** (gardens) are mentioned, they are described as delightful and beautiful, well-planted and shapely.

﴿حَرْث Harth﴾ (ploughing, tilling, plants)

Al-ḥarth الحَرْث is a term pertinent to ploughing and cultivation. It carries several meanings, most of which appear in the Holy Qurʾān.

Harth appears 14 times in the Holy Qurʾān – only one in the verbal form **taḥruthūn** تحرثون (you (m.pl.) plough) – with the following senses:

1– **Al-ḥarth**: tilling the earth and preparing it for cultivation, sowing the seeds and planting. Allah the Most Sublime says:

﴿أَفَرَأَيْتُمْ مَا تَحْرُثُونَ ۚ أَنْتُمْ تَزَعُونَهُ ۖ أَمْ حَتَّىٰ الزَّرْعُونَ ۚ﴾
See ye the seed that ye sow in the ground? Is it ye that cause it to grow, or are We the cause?
(الواقعة: ٦٣ ، ٦٤) (Q: S. 56, al-Wāqīʿah, 63, 64).

2– **Al-ḥarth** is used for plants themselves, standing or harvested. Allah the Most Sublime says:

﴿إِنَّهَا بَقَرَةٌ لَا ذَلُولَ تُثِيرُ الْأَرْضَ وَلَا تَسْقِي الْحَرْثَ ۚ﴾
(He says): a heifer not trained to till the soil or water the fields.
(البقرة: ٧١) (Q: S. 2, al-Baqarah, 71).

He also says:

﴿كَمَثَلِ رِيحٍ فِيهَا صِرٌّ أَصَابَتْ حَرْثَ قَوْمٍ ظَلَمُوا﴾
May be likened to a wind which brings nipping frost: it strikes and destroys

the harvest of men who have wronged
their own souls.

أَنفُسَهُمْ فَأَهْلَكْتَهُ ﴿١١٧﴾

(Q: S. 3, 'Āl-'Imrān, 117). (آل عمران: ١١٧)

He also says to the people of the grove:

Go ye to your tilth (betimes) in the
morning, if ye would gather the fruits.

﴿أَعْدُوا عَلَيَّ حَرْثَكُمْ إِن كُنتُمْ صَادِقِينَ﴾

(Q: S. 68, al-Qalam, 22). (القلم: ٢٢)

3— **Harth** is used metaphorically: **al-mar'atu harthu al-rajul** (the woman is **harth** for her man), because she is the ground in which he implants the seed of their children. Allah the Most Sublime says:

Your wives are as a tilth unto you so
approach your tilth when or how you
will.

﴿نِسَاؤُكُمْ حَرْثٌ لَّكُمْ فَأَتُوا حَرْثَكُمْ أَنَّى شِئْتُمْ﴾

(Q: S. 2, al-Baqarah, 223). (البقرة: ٢٢٣)

Harth is used metaphorically for the blessings of the world and the reward in the Hereafter. Allah the Most Sublime says:

To any that desires the tilth of the
Hereafter, We give increase in his tilth;
and to any that desires the tilth of his
world, We grant somewhat thereof, but
he has no share or lot in the Hereafter.

﴿مَنْ كَانَ يُرِيدُ حَرْثَ الْآخِرَةِ نَزِدْ لَهُ فِي حَرْثِهِ وَمَنْ
كَانَ يُرِيدُ حَرْثَ الدُّنْيَا نُؤْتِهِ مِنْهَا وَمَا لَهُ فِي الْآخِرَةِ
مِنْ نَّصِيبٍ﴾

(Q: S. 42, al-Shūrā, 20). (الشورى: ٢٠)

In its context of agricultural tillage, **harth** is essential for the production of a good crop. It assists in a series of processes: soil ventilation, irrigation facilitation, enabling the radicle to take hold in the soil after germination, improving plant-soil water

relations, eradicating pests by exposing them to the rays of the sun, effecting soil fertilization by the spreading of manure and fertilizers, etc.

﴿ حصد Ḥa ṣ d ﴾ (harvesting)

Ḥaṣada al-zar` ḥaṣdan wa ḥaṣādan حصاداً وحصاداً : to reap the ripened crop. Outside the context of crops, **ḥa ṣ d** implies severing or amputating.

This lexical item appears 6 times in the Holy Qur`ān. Allah the Most Sublime says:

And the harvests that ye reap, ye shall
leave them in the ear.

﴿فَمَا حَصَدْتُمْ فَذَرُوهُ فِي سُنْبُلِهِ﴾

(Q: S. 12, Yūsuf, 47). (يوسف: ٤٧)

He also says:

But render the dues that are proper on
the day that the harvest is gathered.

﴿وَأَتُوا حَقَّهُ يَوْمَ حَصَادِهِ﴾

(Q: S. 6, al-`An`am, 141). (الأنعام: ١٤١)

Elsewhere, He says:

And We send down from the sky rain
charged with blessing, and We produce
therewith gardens and grain for
harvests.

﴿وَنَزَّلْنَا مِنَ السَّمَاءِ مَاءً مُبْرَكًا فَأَنْبَتْنَا بِهِ جَنَّاتٍ
وَحَبَّ الْحَصِيدِ﴾

(Q: S. 50, Qāf, 9). (ق: ٩)

According to al-Zajjāj, in using the word **Ḥa ṣ ī d حصيد**, Allah combines all kinds of grains, inclusive of wheat and barley, and all that is harvested.

Al-ḥaṣīd: al-maḥṣūd المحصود, i.e. the harvested crop, is used in the saying of Allah the Most Sublime:

And We make it like a harvest clean-mown.

﴿فَجَعَلْنَاهَا حَصِيدًا﴾

(Q: S. 10, Yūnus, 24). (يونس: ٢٤)

and:

We made them as a field that is mown.

﴿جَعَلْنَاهُمْ حَصِيدًا﴾

(Q: S. 21, al-'Anbiyā', 15). (الأنبياء: ١٥)

﴿حطْم حطام﴾ **Ḥaṭm** **Ḥuṭām**

(Wreck, crushing to pieces)

Ḥaṭm: **kasr** كسر الشيء (pulverising) something, as paralleled in **al-Hashm** الهشم (smashing of something) and similar words. **Ḥuṭām** حطام (debris): the fragmented remains of some hard item.

The term **ḥuṭāman** حطاما appears 3 times in the Holy Qur'ān. Allah the Most Sublime says:

Then it withers; thou wilt see it grow yellow; then He makes it dry up and crumble away.

﴿ثُمَّ يَهْبِيجُ فَزَرْنُهُ مُضْفَرًا ثُمَّ يَجْعَلُهُ حُطَامًا﴾

(Q: S. 39, al-Zumar, 21). (الزمر: ٢١)

See also: Q: S.56, al-Wāqī'ah, 65; S.57, **al-Ḥadid**, 20.

Al-ḥuṭamah الحطمة appears in the saying by Allah the Most Sublime:

By no means! he will be sure to be thrown into that which breaks to pieces, and what will explain to thee that which breaks to pieces?

﴿كَلَّا لَيُنْبَذَنَّ فِي الْحُطَمَةِ وَمَا أَدْرَاكَ مَا الْحُطَمَةُ﴾

(Q: S. 104, al-Humazah, 4, 5). (الهمزة: ٤، ٥)

Some interpreters are of the opinion that **ḥuṭamah** is one of the names of Hell,

because it (Hell) disintegrates whatever is thrown into it. Others say that **ḥuṭāmah** is one of the doors of Hell. However, both references are to the concept of pulverising, which implies breaking and smashing. The phrase **nārun ḥuṭamah** نار حطمة (blazing fire), denotes **shadidah** شديدة (intense) and **kathiratu al-taḥṭīm** كثيرة التحطيم (of immense pulverising force).

﴿حطب Haṭab﴾ (kindling, fire-wood)

Haṭab حطب is dried timber used as fire-wood. **Al-ʾihtāb** الاحطاب i.e., the collecting of fire-wood, in the form of dry plants and branches of shrubs and trees, is a common practice in desert and forest regions. In the Arabian Peninsula and many other desert countries, the branches of thorny trees such as **al-salam** السكم (*Acacia ehrenbergiana*), **al-Samor** السمر (*Acacia tortilis*), **al-Sanṭ** السنط (*Acacia nilotica*) and **al-Talḥ** الطلح (*Acacia raddiana*), are gathered for fire-wood. Their thorns are often very sharp, and may be hooked, which makes them more painful.

Haṭab appears twice in the Holy Qurʾān. In the first instance, it is in relation to Abū Lahab's wife, who used to carry thorny plants (this group of large thorny trees is known as **al-ʿaḍāh** العضاة : brambles) and cast them in the path of Prophet Mohammad (PBBUH) and his companions. In this connection, Allah the Most Sublime says

His wife shall carry the (crackling) wood as fuel; a twisted rope of palm-leaf fibre round her (own) neck!

﴿وَأَمْرَأَتُهُ حَمَّالَةَ الْحَطَبِ فِي جِيدِهَا حَبْلٌ مِّن مَّسَدٍ﴾

(Q: S. 111, al-Masad, 4, 5). (المسد: ٤، ٥)

Some say that this is a metaphor for her habit of spreading calumny. In the second instance, Allah the Most Sublime says:

But those who swerve are (but) fuel for hell-fire!

﴿وَأَمَّا الْقَاسِطُونَ فَكَانُوا لِجَهَنَّمَ حَطَبًا﴾

(Q: S. 72, al-Jinn, 15). (الجن: ١٥)

In other words, they are the sparks and fuel for the fires of Hell.

﴿Khab' خَبْءٌ﴾

(something hidden
or concealed)

Al-khab' **الخَبْءُ** is what has been hidden or concealed. It denotes anything unseen or purposely concealed. In the **Ḥadīth** (Prophetic Tradition), the Prophet Mohammad (PBBUH) says, "Seek your sustenance in **khabāya al 'ard** خبايا الارض (the crevices of the earth)." This implies tillage and the stimulation of the soil for cultivation.

Khab' appears once in the Holy Qur'an:

(Kept them away from the path), that they should not worship Allah, who brings to light what is hidden in the heavens and the earth, and knows what ye hide and what ye reveal.

﴿الَّذِي يُخْرِجُ الْخَبَّ فِي السَّمَوَاتِ
وَالْأَرْضِ وَيَعْلَمُ مَا تُخْفُونَ وَمَا تُعْلِنُونَ﴾

(Q: S. 27, al-Naml, 25). (النمل: ٢٥)

This **ʿĀyah** appears in the Hoopoe's account of the state of affairs of the people of Saba' (Sheba) and their own queen, and how he found them away from the path of Allah, with no guidance to worship Him, the Omniscient ("Who brings to light what is hidden in the heavens and the earth"). Interpreters of this phrase have suggested that He knows everything that is hidden in heaven, or on the earth. Others say that what is hidden in the skies is rain, and what is hidden in the earth is vegetation. Ibn Kathīr favours the second interpretation.

﴿Khardal خردل﴾

(mustard)

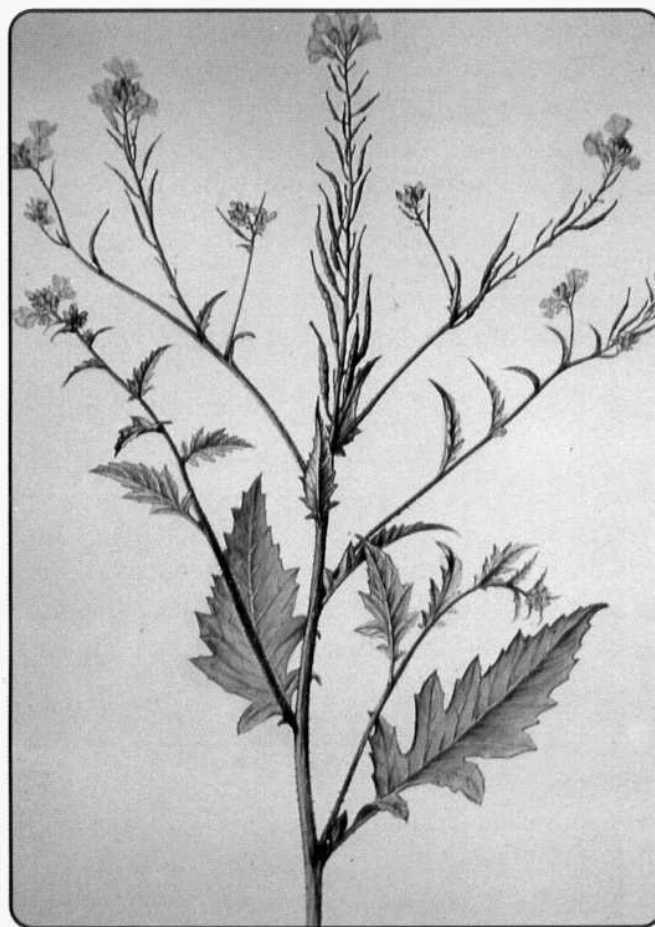
Khardal **خردل** is the denomination for a number of species belonging to one genus. It is a kind of **ḥurf**, pungent and sharp tasting.

It appears in the Holy Qur'an in two places:

And if there be (no more than) the weight of a mustard seed, We will bring it (to account): and enough are We to take account.

﴿وَلَوْ كَانَ مِثْقَالُ حَبَّةٍ مِنْ خَرْدَلٍ أَتَيْنَا بِهَا
وَكَفَىٰ بِنَا حَاسِبِينَ﴾

(Q: S. 21, al-'Anbiyā', 47). (الأنبياء: ٤٧)



Khardal

and:

If there be (but) the weight of a mustard seed and it were (hidden) in a rock, or (anywhere) in the heavens or on earth, Allah will bring it forth.

﴿إِنْ تَكُ مِثْقَالَ حَبَّةٍ مِنْ خَرْدَلٍ فَتَكُنْ فِي صَخْرَةٍ أَوْ فِي السَّمَوَاتِ أَوْ فِي الْأَرْضِ يَأْتِ بِهَا اللَّهُ﴾

(Q: S. 31, Luqmān, 16). (لقمان: ١٦)

The mustard seed is usually associated with smallness. Those two 'Āyas are testimony to the justice of Allah the All-Perfect, and to His reluctance to deprive men of anything as small as the mustard seed.

Mustard is an annual herb, cultivated in most parts of the world. Every part of the plant has a pungent taste. Its flowers are golden-yellow, formed in clusters. The fruit

contains from three to five small seeds, with a sharp taste. The seed is about 1 mm. in diameter. Seeds are homogeneous in size and weight, which is why they have traditionally been used as a measure of weight. The pungent taste derives from the sulphuric content of the seeds, which are used for making mustard sauce; this characteristic makes them a proper ingredient in the preparation of pickles.

The plant belongs to the Cruciferae family. Mustard is either black or white. The Latin name for black mustard is *Brassica nigra* (L.) Koch (= *Sinapis nigra* L.), while that for white mustard is *Brassica hirta* Moench (= *Brassica alba* Rabenh. = *Sinapis alba* L.).

﴿خشب Khashab﴾ (wood)

Khashab خشب is the denomination for any dry tree matter. Singular: **khashabah** خشبة, pl. **khushub** خشب, and **khushbān** خشبان. This lexical item appears once in the Holy Qurʾān, when Allah, May He be Exalted and Glorified, says while describing **al-munāfiqīn** المنافقين (the hypocrites):

They are as (worthless as hollow) pieces
of timber propped up, (unable to stand
on their own).

﴿كَانَ هُمْ خَشَبًا مُسْتَنْدَةً﴾

(Q: S. 63, al-Munāfiqūn, 4). (المنافقون: ٤)

He means (though only He is Omniscient) that in turning their backs on the Revelation, the hypocrites are like dead wood, ghosts without souls, and bodies without minds. The Prophet (PBBUH) describes hypocrites as **khushubun billayl**, **shokhobun binnahār** خشب بالليل صخب بالنهار, implying that they sleep at night like logs and never pray, but boisterous by day. The early Arabs describe someone who had been murdered as if he were a log or a tree-trunk.

﴿خضر Khaḍir﴾ (green)

In colours, **khaḍir** خضر refers to green, usually found in plants as well as in other parts of the creation. **ʾAkhḍar** اخضر and **khaḍir** are used for anything of this colour.

The lexical entry, **khaḍir**, and its derivatives appear eight times in the Holy

Qur'ān five of which refer to the greenness of plants and of the land.
Allah the Most Sublime says:

From some We produce green (crops),
out of which We produce grain heaped
up (at harvest).

(Q: S. 6, Al-'An'ām, 99). (الأنعام: ٩٩)

He also says:

Seest thou not that Allah sends down
rain from the sky and forthwith the
earth becomes clothed with green?

(Q: S. 22, al-Hajj, 63). (الحج: ٦٣)

﴿الَّذِي أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَتُصْبِحُ
الْأَرْضُ مُخْضَرَّةً﴾.

The greenness of the plant results from the chlorophyll pigment. The word chlorophyll is a compound of two morphemes: chloro (green) and phyll (leaf).

Chlorophyll is the most active pigment in the process of photosynthesis. At least nine types of chlorophyll have been identified, the most common of which are chlorophyll A and B, which are present in all green self-feeding plants except some forms of bacteria (self-feeding plants are those which produce complex energy-giving organic matter from simple compounds like water and carbon dioxide).

It is difficult for man to imagine life as we know it without the green pigments in the green plastids – compounds which play an important role in the plant in converting light energy into chemical energy. Life depends upon absorbing solar energy and transforming it into chemical energy.

In the context of creation and rejuvenation, the Holy Revelation states:

The same who produces for you fire out
of the green tree, when behold! Ye
kindle therewith (your own fires)!

(Q: S. 36, Yāsin, 80). (يس: ٨٠)

﴿الَّذِي جَعَلَ لَكُم مِّنَ الشَّجَرِ الْأَخْضَرِ نَارًا فَإِذَا أَنتُم مِّنْهُ تُوقِدُونَ﴾.

Photosynthesis can be viewed as the absorption of solar energy by some green plants – trees included – and converting it into a source of heat energy present in lignin and cellulose, which are components of wood. This view is based on modern science and what we know of chlorophyll, the process of photosynthesis, and the chemical changes that take place in the plant. If we light a fire from dry wood, this heat energy is released and may be used in cooking, heating, lighting, etc. Scientific estimates indicate that the amount of energy held in land plants is 426×10^{18} calories per annum.

The majority of interpreters agree that the tree in the holy 'Āyah refers to all kinds of trees, but some are of the opinion that it refers to two kinds of green trees: **al-markh** المرخ and **al-`afār** العفار, which are used in creating a spark and kindling a fire. "He who wants to make a spark without tinder takes two green twigs of **markh** and **`afār** and rubs one against the other. Thus, fire is produced from between them as it is from tinder." The popular saying has it as follows: "each tree has its fire, but the most glorious among them are **marakh** and **`afār**. **Markh** is commonly known in the Arabian deserts. Its Latin name is *Leptadenia pyrotechnica* (Forssk.) Decne. The name of the species (*pyrotechnical*), is probably derived from the root pyro which means "fire" in Greek, referring to the ability of the plant to produce sparks.

﴿Khamṭ خَمَط﴾ (tree with bitter inedible fruit)

Khamṭ خَمَط : any kind of plant that produces bitter, inedible fruit, or thorny trees which cannot be put to any use.

Khamṭ is mentioned in the Holy Revelation when Allah punished the people of **Saba' (Sheba)** for turning their backs on Allah's injunction and on the Word of His prophets. Allah the All-Perfect says:

But they turned away (from Allah), and
We sent against them the flood
(released) from the Dams, and We
converted their two garden (rows) into
"gardens" producing bitter fruit, and
tamarisks, and some few (stunted)
Christ thorn trees.

﴿فَاعْرَضُوا فَاَرْسَلْنَا عَلَيْهِمْ سَيْلَ الْعَرِمِ وَبَدَّلْنَاهُمْ بِجَنَّتَيْهِمْ
جَنَّتَيْنِ ذَوَاتِ اَكْثِلٍ خَمَطٍ وَاَثْلٍ وَشَيْءٍ مِّنْ سِدْرٍ
قَلِيلٍ﴾

(Q: S. 34, Saba', 16). (سبأ: ١٦)

In this **ʿĀyah khamṭ** has been interpreted variously. Among these interpretations are **al-ʿarāk** العراك (the tooth-brush tree), a kind of **ārāk** with edible fruit, or the fruit of **ʿarāk**. It has also been interpreted as a tree similar to **sidr** (Christ thorn), with fruit like berries, and a tree with thorns. In another interpretation, **khamṭ** in this **ʿĀyah** is a deadly tree or a deadly poison. Alternatively, **khamṭ** denotes the smallest yield of a tree.

It is clear from this Holy **ʿĀyah** that **khamṭ** and **ʿathl** are plants whose fruits cannot be put to any useful purpose. Allah deprived the people of Saba' from the blessings and fruits of the gardens when they showed their ingratitude to Him, changing their groves into a wasteland, with only dry trees with bitter, inedible fruit, or a few fruitful **sidr** (Christ thorn).

﴿Duhn دهن﴾ (oil, fat)

Duhn دهن is widely known for its use in rubbing and embrocation, pl: **ʿadhān** ادهان, and **dihān** دهان .

Allah the Most Sublime says:

Also a tree springing out of Mount Sinai, which produces oil, and relish for those who use it for food.

(Q: S. 23, al-Mu'minūn, 20). (المؤمنون: ٢٠)

﴿وَشَجَرَةً تَخْرُجُ مِنْ طُورِ سَيْنَاءَ تَنْبُتُ بِالذَّهْنِ وَصَنِيعَ
لَا كَلِينَ﴾

Ibn Seeda says, "as for **tanbutu bidduhn** تنبت بالدهن, many have interpreted it as 'produces **duhn**', i.e. the **duhn** tree or the seeds of **duhn**, and the 'bī' is semantically redundant". The implication in the **ʿĀyah** is the blessing of oil to men. This blessing is extended to every kind of tree that contains oil, though it differs depending on the region (Qurtubī: 12/160).

Allah the Most Sublime says:

Whose oil is well-nigh luminous, though fire scarce touched it.

(Q: S. 24, al-Nūr, 35). (النور: ٣٥)

﴿يَكَادُ زَيْتُهَا يَضِيءُ وَلَوْ لَمْ تَمْسَسْهُ نَارٌ﴾

Oil is what is pressed from the parts of some plants, particularly fruits and seeds. In the phrase, **zayt al-zaytūn** زيت الزيتون, **zayt** means **duhn**, i.e. oil. Oils are organic substances secreted in the parts of various plants, particularly the seeds and fruits, and contain a great amount of energy (see **zayt**, **zaytūn**).

﴿ربا Rabā﴾ (increased and grew)

Rabā ربا : increased and grew. This lexical item appears 18 times in the Holy Qurʾān, connoting increase and growth. **Ribā ربا** (usury) applies to money.

With regard to vegetation, soil, and torrents, the word and its derivatives appear in the following ʿĀyas:

and the channels flow, each according to its measure; but the torrent bears away the foam that mounts up to the surface.

(Q: S. 13, al-Raʿd, 17). (الرعد: ١٧)

﴿فَسَالَتِ الْأُودِيَةُ بِقُدْرِهَا فَاحْتَمَلَ السَّيْلُ زَبَدًا رَابِيًا﴾

And (further), thou seest the earth barren and lifeless, but when we pour down rain on it, it is stirred (to life), and swells.

(Q: S. 22, al-Ḥajj, 5). (الحج: ٥)

﴿وَتَرَى الْأَرْضَ هَامِدَةً فَإِذَا أَنْزَلْنَا عَلَيْهَا الْمَاءَ اهْتَزَّتْ وَرَبَتْ﴾

And among His signs is this: thou seest the earth barren and desolate; but when We send down rain to it, it is stirred to life and yields increase.

(Q: S. 41, Fuṣṣilat, 39). (فصلت: ٣٩)

﴿وَمِنْ آيَاتِهِ أَنْ تَرَى الْأَرْضَ خَاشِعَةً فَإِذَا أَنْزَلْنَا عَلَيْهَا الْمَاءَ اهْتَزَّتْ وَرَبَتْ﴾

In the last two ʿĀyas, **rabat ربت** means that the soil swelled. It is well known that water will increase the volume of the soil. It is possible that what is meant by ʿ**ihtizāz** and **ribā** (the stirring to life and increase in size) resulting from irrigation is (only Allah is All-Knowing) the beginning of germination of seeds and micro-organisms in the soil and this represents an addition to the soil.

However, in the following two **Āyas**, **rabwah** رَبْوَةٌ means all that is elevated and growing:

﴿ كَمْثَلِ جَنَّةٍ بِرَبْوَةٍ أَصَابَهَا وَابِلٌ فَثَانَتْ أَكْلُهَا ضَعْفَيْنِ ﴾

Is as a garden, high and fertile; heavy rain falls on it but makes it yield a double increase of harvest.

(البقرة: ٢٦٥) (Q: S. 21, al-Baraqaḥ, 265).

﴿ وَجَعَلْنَا ابْنَ مَرْيَمَ وَأُمَّهُ آيَةً وَآوَيْنَاهُمَا إِلَى رَبْوَةٍ ذَاتِ قَرَارٍ وَمَعِينٍ ﴾

And We made the son of Mary and his mother as a sign: We gave them both shelter on high ground, affording rest and security and furnished with springs.

(المؤمنون: ٥٠) (Q: S. 23, al-Mu'minūn, 50).

﴿ رطب Raṭb ﴾

(moist, wet, freshly - grown)

Raṭb رطب : the antonym of dry, freshly-grown green plant. Allah the Most Sublime says:

﴿ وَلَا رَطْبٌ وَلَا يَابِسٌ إِلَّا فِي كِتَابٍ مُبِينٍ ﴾

nor anything fresh or dry (green or withered), but is (inscribed) in a Record clear...

(الأنعام: ٥٩) (Q: S. 6, al-An'ām, 59).

Ruṭb رطب and **ruṭub** رطب denote a pasture of green spring growth.

Ruṭab رطب ; sing. **ruṭabah** رطبة , i.e. the fully ripe date fruit. Before becoming **ruṭab**, the fruit of the palm tree is either red, yellow, or green. Then, some changes occur, resulting in an increase in its sugar content. At this point, the fruit becomes **ruṭab**, i.e. soft and sweet. The word appears in this sense in the following **Āyah**:

﴿ وَهَزَى إِلَيْكَ بِجَنَاحِ النَّخْلِ تُسْقِطُ عَلَيْكَ رُطَبًا جَنِيًّا ﴾

And shake towards thyself the trunk of the palm tree; it will let fall fresh ripe dates upon thee.

(مريم: ٢٥) (Q: S. 19, Maryam, 25).

(See also **nakhḥ** نخل , and Maryam in the Dictionary).

﴿رعي Ra`y﴾ (pasture, grazing)

Ra`y رَعَى : the verbal noun of **Ra`ā al-kalāʾ الكَلَا** (grazed the vegetation) and similar phrases. **Ra`at al-māshiyah رَعَتِ الْمَاشِيَةَ**: the cattle grazed the vegetation.

The word and its derivatives appear 10 times in the Holy Qurʾān, with varying connotations, of which only four are relevant to the grazing of animals:

Eat (for yourselves) and pasture your cattle.

﴿كُلُوا وَارْعَوْا أَنْفُسَكُمْ﴾

(Q: S. 20, Ṭāha, 54). (طه: ٥٤)

Rāʾi رَاعِي : someone who grazes the cattle, i.e. shepherd, cowherd, pl. **riʾāʾ رِعَاء**, **ruʾāh رِعَاة**, and **ruʾyān رُعِيَان**. Allah the All-Perfect recounts what was said by the two daughters of the Prophet of Madyan to Moses (PBUH):

They said: 'We cannot water (our flocks) until the shepherds take back (their flocks) and our father is a very old man.

﴿قَالَتَا لَا نَسْقِي حَتَّى يُصْدِرَ الرِّعَاءُ وَأَبُونَا شَيْخٌ كَبِيرٌ﴾

(Q: S. 28, al-Qaṣaṣ, 23). (القصص: ٢٣)

Ra`y refers to the grass and the like on which cattle graze. It also refers to the grazing area. Allah the Infallible says:

And the earth, moreover, hath He extended (to a wide expanse);
He draweth out therefrom its moisture
and its pasture.

﴿وَالْأَرْضَ بَعْدَ ذَلِكَ دَحْنَهَا أَخْرَجَ مِنْهَا مَاءَهَا وَمَرْعَهَا﴾

(Q: S. 79, al-Nāziʾāt, 30,31). (النازعات: ٣٠، ٣١)

He also says:

And who bringeth out the (green and luscious) pasture.

(Q: S. 87, al-'A'lā, 4). (الأعلى: ٤)

﴿وَالَّذِي أَخْرَجَ الْمَرْعَى﴾

﴿Rummān رمان﴾ (pomegranates)

Rummān رمان is the yield of a common fruit tree, sing. **rummānah** رمانة.
This word appears 3 times in the Holy Qur'ān:

..., and olives, and pomegranates, each similar (in kind) yet different (in variety).

(Q: S. 6, al-'An'ām, 99). (الأنعام: ٩٩)

﴿وَالزَّيْتُونَ وَالرُّمَّانَ مُشْتَبِهًا وَغَيْرَ مُتَشَبِهٍ﴾

..., and olives, and pomegranates, similar (in kind) nad different (in variety).

(Q: S. 6, al-'An'ām, 141). (الأنعام: ١٤١)

﴿وَالزَّيْتُونَ وَالرُّمَّانَ مُتَشَبِهًا وَغَيْرَ مُتَشَبِهٍ﴾

In them will be fruit and dates and pomegranates.

(Q: S. 55, al-Rahmān, 68). (الرحمن: ٦٨)

﴿فِيهِمَا فَاكِهَةٌ وَنَخْلٌ وَرُمَّانٌ﴾

The **rummān** is a shrub or small tree producing orange-red flowers. The fruit is a globular berry, encased in a yellow-brown or red rind. It ranges in diameter from 7 to 10 cm. At one end of the fruit, there is a thick rounded calyx. The skin of the fruit is leathery. The core is edible, and contains a purple-red juice and a large quantity of seeds. The principal habitat of the pomegranate is Iran, although its cultivation has spread to the Mediterranean basin and S. Asia.

The Latin name is *Punica granatum* L. of the family Punicaceae. The dried skin of



Rummān

the fruit is used in popular medicine for the treatment of diarrhea, on account of its constipatory tannins. The seeds contain sugars, although their taste may be acidic. They are rich in potassium, and contain phosphorus and vitamins B and C.

In the previous two 'Āyas of the 'An`ām **sūrah**, Allah the Infallible mentions that He made olives and pomegranates grow similar and dissimilar. It is difficult to distinguish between various varieties of olives and pomegranates in the absence of their fruit. The leaves are identical, and the general appearance of the tree is the same. However, the different species and varieties differ in terms of the fruit. In other words, it is often impossible to distinguish one from the other until after fruition. Similar and dissimilar refer to (only Allah is Omniscient) species and varieties of olives and pomegranates. The shape of the leaves and branches in two trees may appear similar, but there are differences between them in the size, colour, and taste of their fruits.

In his commentary on the description in the Holy Revelation of the groves of

Paradise. "fihimā fākihātun wa nakhilun wa rummān فیهما فاکهة ونخل ورمان" (in them will be fruits, and dates and pomegranates) (Q:S. 55, al-Rahmān, 68), Ibn Mandhūr (al-Lisān) explains that although "wa" is used here as a conjunctive, it functions as a specifier. Native speakers of Arabic customarily refer to the general before the specific in order to focus on its characteristics. In other words, Allah gives them preferential mention (Qurtubī: 17/186).

❖ ريحان Rayhān ❖ (basil, plant, subsistence)

Rayhān ريحان carries several meanings. It may denote a specific kind of plant, or may describe any aromatic plant whatsoever. Among its meanings is "subsistence".

Rayhān appears twice in the Holy Qurʾān. Allah the Most Sublime says:

Also corn, with (its) leaves and stalk for fodder, and sweet-smelling plants.

(Q: S. 55, al-Rahmān, 12). (الرحمن: ١٢)

﴿وَالْحَبُّ ذُو الْعَصْفِ وَالرَّيْحَانُ﴾

and He says:

Thus, then, if he be of those nearest to Allah (there is for him) rest and satisfaction, and a garden of delights.

(Q: S. 56, al-Wāqīʾah, 88, 89). (الواقعة: ٨٨ ، ٨٩)

﴿فَأَمَّا إِن كَانَ مِنَ الْمُقَرَّبِينَ فَرَوْحٌ وَرَيْحَانٌ وَجَنَّتْ نَعِيمٌ﴾

Rayhān occurs in the distinguished and sanctified **Hadīth** where the hypocrite recites the Holy Qurʾān is like a basil plant - sweet scented but bitter in taste (al-Bukhārī). It appears in another **Hadīth** of Allah's Messenger (PBBUH): "He who is offered a basil plant should not refuse it: it is light to bear and fragrant of perfume" (Ṣaḥīḥ Moslem).

What is referred to in the revered and sanctified **Hadīths** is types of basil. The most widely known type of **Rayhān** is **al-Mashmūm** المشموم (scent-giving). The Latin name is *Ocimum basilicum* L., of the Labiatae family.

Rayhān is a perennial plant. It grows wild in the mountains of the Arabian Peninsula, but **al-mashmūm** is a widely cultivated variety. The leaves of the plant and



Rayḥān

its fresh stem contain a sweet and sharp volatile oil. It is also a decorative garden plant. The bitterness of the taste comes from its aromatic oil, used in the cooking of food and the preparation of sauces.

It is to be noted that the people of the Maghreb refer to **rayḥān** as **الأس** 'āss. However, 'āss was known to the early Arabs by this name and has been mentioned in dictionaries. But its description applies to a genus other than **rayḥān**.

Interpreters have offered different meanings for **rayḥān** in al-Raḥmān 'Sūrah of which we mention the following:

- (1) **Rizq** رزق (subsistence),
- (2) **khudratu al-zar'** خضرة الزرع (a plant's greenness),
- (3) **kullu baqlatin ṭayyibati al-Riḥ** كل بقلة طيبة الريح (any aromatic herb),
- (4) Al-Hassan al-Baṣrī says that **rayḥān** in the phrase "**rayḥānukum hādha**" means common sweet basil. For all the interpretations, see al-Durr al-Manthūr: 6/141, and Qurtubī: 17/157.

﴿Zara`a زرع﴾ (sowed)

Zara`a al-habb زرّع الحب : he sowed the seeds. **Zirā`ah زراعة** is the process of sowing seeds. **Zar` زرع** is the seed which is sown or the seedling which is planted. Some say **zar`** is the produce of whatever has been tilled. Others say **zar`** means sowing.

Zar` and its derivatives appear 14 times in the Holy Qur`ān, with two major purposes referred to. There are **Āyas** which mention **zar`** in the context of the illumination of Allah's mercy toward His servants and reminding us of His merciful design. For example, Allah the Most Sublime says:

See ye the seed that ye sow in the ground? Is it ye that cause it to grow, or are We the cause? Were it Our will We could crumble it to dry powder.

(Q: S. 56, al-Wāqī`ah, 63-64).

﴿أَفَرَأَيْتُمْ مَا تَحْرُثُونَ ۚ أَنَأْتُمُ زَرْعُونَهُ ۚ أَمْ نَحْنُ الزَّارِعُونَ ۚ لَوْ نَشَاءُ لَجَعَلْنَاهُ حُطَبًا ۖ﴾

(الواقعة: ٦٣ ، ٦٤)

(See also: Q: S. 6, al-`An`ām, 141; S. 13, al-Ra`d, 4; S. 16, al-Naḥl, 11; S. 32, al-Sajdah, 27). Other **Āyas** mention **zar`** for the purpose of illustration:

1- Allah the Most Sublime says:

See thou not that Allah sends down rain from the sky, and lends it through springs in the earth? Then He causes to grow, therewith, a produce of various colours: then it withers; thou wilt see it grow yellow; then He makes it dry up and crumble away. Truly, in this a message of remembrance to men of understanding.

(Q: S. 39, al-Zumar, 21).

﴿الَمْ نَرِ أَنَّا أَنزَلْنَا مِنَ السَّمَاءِ مَاءً فَسَلَكَهُ يَنَابِيعَ فِي الْأَرْضِ ثُمَّ يُخْرِجُ بِهِ زَرْعًا مُّخْتَلِفًا أَلْوَنُهُ ثُمَّ يَهِيجُ فَتَرَاهُ مُصْفَرًّا ثُمَّ يَجْعَلُهُ حُطَبًا إِنَّ فِي ذَلِكَ لَذِكْرًا لِأُولِي الْأَلْبَابِ ۖ﴾

(الزمر: ٢١)

This example reminds men of the beauty of wordly existence, as a warning to them not to become captivated by its flourishing and sensual delights. Allah has likened the world to a plant nurtured by the rain, and thus producing various kinds of produce. Then it quickly withers and crumbles away.

2- Allah the Most Sublime describes His Messenger (PBBUH) and His companions in the following terms:

Mohammad is the Messenger of Allah, and those who are with Him are strong against unbelievers, (but) compassionate amongst each other. Thou wilt see them bow and prostrate themselves (in prayer), seeking grace from Allah and (His) good pleasure. On their faces are their marks, (being) the traces of their prostration. This is their similitude in the Tawrah; and their similitude in the Gospel is like a plant which sends forth its tiller, then makes it strong; it then becomes thick, and it stands on its own stem, (filling) the sowers with wonder and delight. As a result, it fills the unbelievers with rage at them.

﴿مُحَمَّدٌ رَسُولُ اللَّهِ وَالَّذِينَ مَعَهُ أَشِدَّاءُ عَلَى الْكُفَّارِ رُحَمَاءُ
بَيْنَهُمْ تَرَاهُمْ رُكَّعًا سُجَّدًا يَبْتَغُونَ فَضْلًا مِنَ اللَّهِ وَرِضْوَانًا
سِيمَاهُمْ فِي وُجُوهِهِمْ مِنْ أَثَرِ السُّجُودِ ذَلِكَ مَثَلُهُمْ فِي
التَّوْرَةِ وَمِثْلَهُمْ فِي الْإِنْجِيلِ كَرَزَجٍ أَخْرَجَ شُطْرَهُ فَتَوَدَدُوا
فَاسْتَفَاطَ فَاسْتَوَى عَلَى سَوْفِهِ يَعْجِبُ الزُّرَّاعَ لِيَغِيظَ
بِهِمُ الْكُفَّارَ﴾

(Q: S. 48, al-Fath, 29). (الفتح: ٢٩)

He means that they begin as a small number, and increase like a plant which appears feeble after tillage, but whose stem and tillers soon strengthen and become firm. Others say that **zar`** (the plant) is used metaphorically for the Prophet Moḥammad (PBBUH), and **shaṭ`** شطء (tillers) for His companions, who were few in number but increased, and were weak but grew stronger. Allah the Almighty ensured this in order to "fill the unbelievers with rage at them".

﴿Zaqqūm زقوم﴾ (the tree of hellish punishment)

Zaqqūm زقوم : tree as such is mentioned by name on three occasions in the Holy Qurʾān, as the food of the unbelievers in Hell. Dictionaries and botanical texts differ widely in their definition of the term.

– Al-Mu`jam al-Waṣīṭ المعجم الوسيط defines it as a tree whose fruit is of bitter taste align and noxious smell, and is the food of the inhabitants of Hell. It is any kind of food which is dangerous for human consumption. **Zaqama al-khubz** زقم الخبز and the like implies that he has swallowed the bread. **ʿĀzqama**: ازقم made someone swallow something; **ʾizdaqama** إزدم : he gulped something.

– Al-Sihāḥ fi al-Lughah wa al-ʿUlūm الصحاح في اللغة والعلوم describes it as **balāḥu al-ṣaḥrāʾ** بلح الصحراء (dates of the desert). It is a shrub belonging to the Rutaceae family, to which citrus trees belong. It has a fruit which becomes edible on ripening, known in Latin as *Balanites*, which is scientifically inaccurate. *Balanites* is not a shrub, but a tree which does not belong to the Rutaceae, but to the Balanitaceae. The common Arabic name for it is **al-hajlij** الهجليج (*Balanites aegyptiaca*).

– Qutr al-Muḥīt قطر المحيط by al-Bustānī, says that **zaqqūm** is a kind of tree in Jericho, in **al-Ghaur** (Jordan River Valley), with a sweet and acrid date-like fruit, or it is a desert plant with jasmine-like blooms.

– Matnu al-Lughah متن اللغة , by Aḥmed Riḍā, lists a number of meanings; zaqqūm (etymologically of African origin) is:

- (1) an African dish of dates and butter;
- (2) the tree of Hell;
- (3) a desert plant with jasmine-like flowers;
- (4) a dust-coloured tree, with small round leaves, bitter-tasting, with nodules on the trunk and a strip which attracts bees. Its flowers are white, and the leaf tips are hideous.
- (5) a tree in Jericho of al-Ghaur with a sweet and acrid date-like fruit;
- (6) any food dangerous for human consumption.

Botanical texts do not agree on a definition for **zaqqūm**. In The Flora of Saudi Arabia, Dr. Aḥmed Migahid identifies **zaqqūm** as *Marrubium vulgare* L, which is a perennial aromatic herb that does not grow above 60 cm. and which belongs to the Labiatae family, that includes mint, wild thyme, sweet basil, and **ja`dah** (germander), and other common aromatic plants. It goes without saying that this description does not apply to what has been described in the Holy Qurʾān.

Dr. Aḥmed ʿĪsa says that in Syria **zaqqūm** is *Fagonia aegyptiaca*. The genus *Fagonia* is known as **janba** or **shkā`a**. It includes thorny short perennial herbs. The name **zaqqūm** is also used for *Elaeagnus angustifolia*, which is a tree bearing edible fruit. It belongs to a family named after the genus (Family Elaeagnaceae). Its fruit is called **sanjīd** سنجد or Persian Nabq. According to the Flora of Iraq (4:426), this plant

has several other names in Arabic apart from **zaqqūm**. However, the authors of that flora are sceptical as to the authenticity of the name.

Dr. Aḥmed `Īsa uses the term "**al-zaqqūm al-hindī**" الزقوم الهندي to denote *Euphorbia antiquorum* L., a tree which may grow to a height of 9 metres. It is found chiefly in India and S.E. Asia, bears small leaves which fall early and leave thorns (spiny stipules). The tree secretes a poisonous latex. However, the people of China and Malaysia make sweets from the leaves. They pierce a hole in the leaf to extract most of the latex, and then boil the leaves in syrup. It seems that the poisonous ingredient is decomposed by heat. The plant has not been recorded as indigenous to the Arabian Peninsula.

Ibn al-Biṭār says in Kitāb al-Riḥlah that **zaqqūm** is a name used in the Hejaz for an attractive-looking plant which grows from one stalk to the height of a man's thigh; it grows slightly less tall in stony ground. It is cactus-shaped, and white in colour. The leaves interwine thickly around the main body of the plant. It is similar to **ʿaswaq al-khunthā** اسوق الخنثى both in shape and in general appearance. It is 4-sided, like the leaves of cactus, but is without thorns. From its stem extend many branches with jasmine-like flowers at their tips, but smaller and firmer. The bloom itself has only five dull-coloured petals, which spread farforiyya (sic.), from the top of which extend funnels as big as the finger-tip. It then produces sesame-like fronds, but longer and blackish in colour. Inside it there is a furry fruit. The plant tastes like the aloe and its juice is somewhat viscous. Some bedouins call it **ḍar`u al-kalbah** ضرع الكلبة, others call it **al-`alqī** which is more correct.

Under **zaqqūm ʿākhar** زقوم آخر (i.e., another **zaqqūm**): Ibn al-Biṭār says, it is also a very thorny tree with fruit the size of an almond. It becomes yellow toward the end of the season, and has a hard stone, whose latex is used as lamp oil and is more long-lasting than any other oil. It is sharp, quickly effective, and a useful anaesthetic. The plant grows in al-Ghaur. Its tree resembles Christ thorn, and its leaves are the size of finger nails, its trunk is huge, green on the outside like *Azadirachta indica*. Its branches are slender, pliant, and dipping, like the bramble, with thorns like those **silā** (*Zilla spinosa*) and its blossoms are of yellowish hue.

From all of the above, it is clear that botanical references do not precisely identify the **zaqqūm** tree. The interpreters say that the Quraysh tribe were never acquainted with **al-zaqqūm**. Most probably (only Allah is All-Omniscient) it is a kind of tree uncommon on earth. It is as Allah has described it. It is He, the All-perfect, who knows its identity best.

Allah the Most Sublime says:

Is that the better entertainment or the tree of Zaqqūm? For We have truly made it (as) a trial for the wrongdoers. For it is a tree that springs out of the bottom of hell-fire: The shoots of its fruit-stalks are like the heads of devils: truly they will eat thereof.

(Q: S. 37, al-Şāffāt, 62-66).

﴿أَذَلَّكَ خَيْرٌ نَزْلًا أَمْ شَجَرَةُ الزَّقُّومِ إِنَّا جَعَلْنَاهَا فِتْنَةً لِلظَّالِمِينَ إِنَّهَا شَجَرَةٌ تَخْرُجُ فِي أَصْلِ الْجَحِيمِ طَلْعُهَا كَأَنَّهُ رُءُوسُ الشَّيَاطِينِ﴾.

(الصافات: ٦٢ - ٦٦)

Verily the tree of Zaqqūm will be the food of the sinful, like molten brass; it will boil in their insides, like the boiling of scalding water.

(Q: S. 44, al-Dukhān, 43-46).

﴿إِنَّ شَجَرَةَ الزَّقُّومِ طَعَامٌ لِّالَّذِينَ كَفَرُوا هَلْ يَغِي فِي الْبُطُونِ كَغَلِي الْحَمِيمِ﴾.

(الدخان: ٤٣ - ٤٦)

Then will ye truly O ye that go wrong, and treat (truth) as falsehood! Ye will surely taste of the tree of Zaqqūm.

(Q: S. 56, al-Wāqī'ah, 51, 52).

﴿ثُمَّ إِنَّكُمْ أَنْتُمْ أَتِهَا الضَّالُّونَ الْمَكِيدُونَ لَا يَكُونُ مِنْ شَجَرٍ مِنْ زُقُومٍ﴾.

(الواقعة: ٥١ ، ٥٢)

It is also the cursed tree mentioned in the Holy Qur'ān (S. 17, al-Isrā', 60).

Some of the Quraysh infidels, headed by 'Abū Jahl and Ibn al-Zibā'rā, were fascinated by the tree, as mentioned by Allah. Abū Jahl said: "This tree never grows in our land. Whoever of you knows **al-zaqqūm**?" (Al-Qurṭubī, 10/283: 15/85). Qatādah has said, "The **zaqqūm** tree was mentioned and the infidels were fascinated by it and commented 'your man tells you about a tree in Hell, but fire eats trees'. Allah revealed the 'Āyah: 'It is a tree that springs out of the bottom of Hell-fire', i.e. it has been made and nourished by fire" (Ibn Kathīr: 4/12).

زلق Zalaq (slippery)

Al-ʿard al-zalaq الأرض الزلق is the land on which no foot can stand.
Allah the Most Sublime says:

making it (but) slippery sand!

(Q: S. 18, al-Kahf, 40). (الكهف: ٤٠)

﴿فَصَبِّحْ صَعِيدًا زَلَقًا﴾

It is a barren place, devoid of any form of vegetation. Al-ʿAkhfash says, "No feet can stand on it" (see **ṣaʿid**). The phrase, **ʿazlaqahu** ازلقه means to push someone from his place, or to trip someone up. Allah the Most Sublime says:

And the unbelievers would almost trip
thee up with their eyes.

(Q: S. 68, al-Qalam, 51). (القلم: ٥١)

﴿وَأِنْ يَكَادُ الَّذِينَ كَفَرُوا لَيُزْلِقُونَكَ بِأَبْصَرِهِمْ﴾

In other words, to look daggers at one to the extent that one is "tripped" from the position Allah has given one. Al-Farrāʿ says **liyuzliqūnak** ليزلقونك means to trip you up and dislocate you with their eyes, like saying **yaṣraʿunī shiddatu nazarih** يصرعني شدة نظره (to kill me with the sharpness of his look).

زنجبيل Zanjabīl (ginger)

Zanjabīl زنجبيل occurs on one occasion in the Holy Qurʾān, when Allah the Most Sublime says:

And they will be given to drink there a
cup (of wine)* mixed with zanjabīl.

(Q: S. 76, al-Insān, 17). (الإنسان: ١٧)

﴿وَيُسْقَوْنَ فِيهَا كَأْسًا كَانَ مِزَاجُهَا زَنْجَبِيلًا﴾

(*) The original Qurʾanic **ʾĀyah** makes no explicit mention of "wine". This is the translator's addition.

Ginger is a perennial plant which grows in tropical regions. The Latin name is *Zingiber officinale* Roscoe of the Zingiberaceae family. The part of the plant used is the rhizome. Its leaves are spear-shaped, and the flowers yellow, with purple lips.

The rhizomes are pulled out when the leaves of the plant begin to wither. The roots are separated from the rhizomes, which are left to dry until softened inside. The bark is scraped. It may be boiled in a sugary solution, or may be dried and sprinkled with icing sugar.

The original habitat of ginger is S.E. Asia. It has been used since ancient times in India and China as both a seasoning and a medicine. It was known to the Greek physicians and was also mentioned by Arab physicians. It appears among the medicines referred to in the Canon of Medicine of Ibn Sīna (Avicenna), as well as in other books by Muslim scholars.

Ginger is one of the official drugs. There are several types, according to its origin and the method of preparation, which depends upon the amount of bark removed from the rhizome. There is Jamaican ginger, Cochin ginger, African ginger, and Calcutta ginger.

Ginger is used as a food seasoning. It is helpful in the reduction of stomach gases. It is an appetizer, and an ingredient in medicines used for dilating the blood vessels. It increases the level of perspiration, enhances body heat, and regulates body temperature. It is also rich in carbohydrates and phosphorus.

زوج **Zawj** (pair, couple)

Zawj is the individual which has a partner or counterpart. Ibn Seeda says that a saying by Allah Most Exalted proves that in the speech of the Arabs, **zawjayn** زوجين (a married couple) means pair, two, a couple:

That He did create in pairs – male and female.

﴿وَأَنۢمَّ خَلَقَ الذَّكَرَ وَالۡأُنثَىٰ﴾

(النجم: ٤٥) (Q: S. 53, al-Najm, 45).

Each of them, as we see, is **zawj**, whether male or female.
All creation is in pairs, as is stated in the Holy Revelation:

And of every thing We have created
pairs: That ye may receive instruction.

(Q: S. 51, al-Dhāriyāt, 49). (الذريات: ٤٩)

﴿وَمِنْ كُلِّ شَيْءٍ خَلَقْنَا زَوْجَيْنِ لَعَلَّكُمْ تَذَكَّرُونَ﴾

In this **Āyah**, it is implied that the following are pairs: the sky, the earth; winter, summer; night and day. Pl.: **ʿazwāj** أزواج, as is stated in the words of Allah the Most Sublime:

O Prophet! say to thy consorts (ʿazwāj).

(Q: S. 33, al-Aḥzāb, 28). (الاحزاب: ٢٨)

﴿يَا أَيُّهَا النَّبِيُّ قُلْ لِّزَوَّجِكَ﴾

Zawj is one kind of any particular thing, as is evidenced by the Holy Revelation:

And it puts forth every kind of
beautiful growth in pairs.

(Q: S. 22, al-Hajj, 5). (الحج: ٥)

﴿وَأَنْبَتَتْ مِنْ كُلِّ زَوْجٍ بَهِيجٍ﴾

We may therefore state that **zawj** is one thing of which there is a counterpart or partner in terms of species, or that which has its opposite, i.e. as in male and female. It may refer to one kind of any thing whatsoever.

The chief characteristic of the Divine Power is His Uniqueness, and the Essence of His Divinity is His One-ness. The continuity of life and Allah's Creation is duality. Life cannot continue without the presence of a pair of each kind. The courses of life are distinguished by the differences between opposites; night would have no identity without day nor would day without night. By their opposites things are distinguished. The continuity of life depends on the creation of male and female, in man, animal, and plant. Even inanimate objects have their positive and negative, as in the case of electrical current.

The concept of duality in the creation is emphasized in 81 references in the Holy Qurʾān. Eight of these concern plants. Allah the Most Sublime says:

And (further), thou seest the earth
barren and lifeless, but when We pour
down rain on it, it is stirred (to life), it

﴿وَتَرَى الْأَرْضَ هَامِدَةً فَإِذَا أَنْزَلْنَا عَلَيْهَا الْمَاءَ﴾

swells, and it puts forth every kind of beautiful growth in pairs.

(Q: S. 27, al-Hajj, 5).

أَهْرَزَتْ وَرَبَّتْ وَأَنْبَتَتْ مِنْ كُلِّ زَوْجٍ بَهِيجٍ ﴿٥﴾

(الحج: ٥)

Do they not look at the earth – how many noble things of all kinds We have produced therein?

(Q: S. 27, al-Shu`arā, 7).

﴿أَوَلَمْ يَرَوْا إِلَى الْأَرْضِ كَمَا أَنْبَتْنَا فِيهَا مِنْ كُلِّ زَوْجٍ كَرِيمٍ﴾

(الشعراء: ٧)

And has sent down water from the sky. With it have We produced diverse pairs of plants, each separate from the others. Eat (for yourselves) and pasture your cattle.

(Q: S. 20, Tāha, 53, 54).

﴿وَأَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجْنَا بِهِ أَزْوَاجًا مِنْ نَبَاتٍ شَتَّى كُلُوا وَارْعَوْا أَنْعَمَكُمْ﴾

(طه: ٥٣، ٥٤)

Glory to Allah, who created in pairs all things that the earth produces.

(Q: S. 36, Yāsin, 36).

﴿سُبْحَنَ الَّذِي خَلَقَ الْأَزْوَاجَ كُلَّهَا مِمَّا تُنْبِتُ الْأَرْضُ﴾

(يس: ٣٦)

See also: Q: S. 13, al-Ra`d, 3; S. 31, Luqmān, 10; S. 50, Qāf, 7; S.55, al-Rahmān, 52.

It was not until the 17th century that the pairing of plants was first understood, although it had been revealed in the above **Āyas**. The process whereby dates are hastened to ripeness by artificial pollination had probably been known, but it had not been understood that plants follow the same system of pairing as applies to man and animal.

Roughly three centuries ago, botanists understood that flowering plants which yield fruits have flowers possessing both male and female organs. They may occur together in the same flower or be borne by different flowers or two individual plants. There are some plants called dioecious, i.e. where individual plants carry either male or female flowers. Male cells known as pollen grains, are transmitted from male to female flowers by the wind – a process known as wind pollination. Wheat, barley, maize, and rice are examples. The process may be effected through water in the case of water plants, or by insects in most plants with colourful flowers or which produce nectar that attracts insects. When the insect enters a female flower, it transmits the pollen grains it had carried from a male flower. Pollination may be performed by man, as in the case

of dates, where the pollen grains are carried from the androecium of the male flowers to the gynoecium of the female flowers.

There are plants called monoecious, in which the individual carries both male and female flowers. There are other plants which have bisexual flowers, i.e. the flower carries both male and female organs. Despite that, the pollination of the female organ may be carried out by pollen grains from another flower, due to the difference in the time of maturity of the two sexes inside the same flower or to other reasons.

From this short account, it is obvious that there are male and female organs in plants in general. Pollination is followed by the fusion of the ovule and the pollen grain, which produces an embryo in the seed. The seed we eat, like that of broad bean or green bean, is nothing but a fertilized ovule. The fruit is nothing but an ovary containing the fertilized ovules as for example the pod of broad bean or green bean, or the orange or lemon. The fruit is the result of this sexual reproduction.

Thus, Allah the All-Perfect and Most Sublime created the flower, with male and female organs together or separate, as an element of multiplication and the preservation of the plant species in order that life may continue for as long as Allah wills.

زيت Zayt (olive oil)

Zayt : زيت duhn al-zaytūn (olive oil). It also refers to the oil of other plants by adjectival or suffixational qualification (At.): **zayt al-kharwa** زيت الخروع (castor oil), **zayt al-simsim** زيت السمسم (sesame seed oil), **al-zayt al-hār** الزيت الحار (hot oil). **Al-zayt al-ma'danī** الزيت المعدني (mineral oil) is that extracted from the earth's core. **Al-zayt al'itri** الزيت العطري is volatile oil with a pleasant odour, found in leaves and flowers.

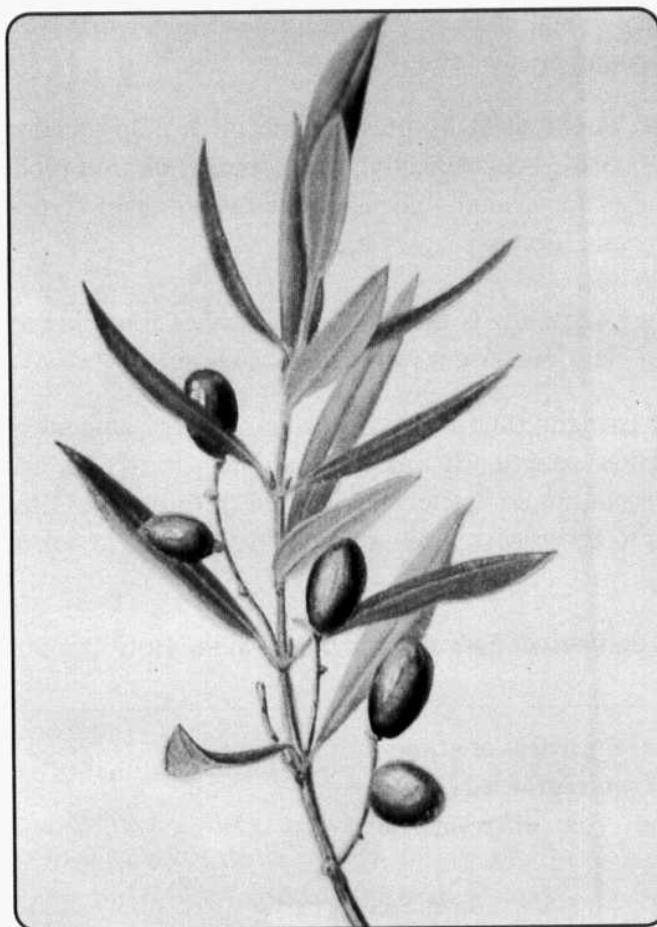
Zayt appears only once in the Holy Qur'ān, where Allah the Most Sublime says:

Whose oil is well-nigh luminous,
though fire scarce touched it.

يَكَادُ زَيْتُهَا يَضِيءُ وَلَوْ لَمْ تَمْسَسْهُ نَارٌ

(Q: S. 24, al-Nūr, 35). (النور: ٣٥)

(See also: **duhn**, **zaytūn**, and **ṣibgh**).



Zaytūn

﴿**Zaytūn زيتون**﴾
(olive)

Zaytūn : زيتون is an oil-giving tree of the family Oleaceae; its fruit is edible after preparation, and oil is pressed from it. **Zaytūn** is one of the oldest trees known to man. It was known in Egypt in the 7th century B.C., and it is referred to in the Tawrāh and the Bible, as well as in the writings of the Greeks and the Romans.

Zaytūn trees are widely cultivated in the countries of the Mediterranean basin. Its original habitat was probably in the East Mediterranean region. The plant tolerates drought and salinity to a reasonable extent. The olive tree may survive for hundreds of years. In height, it may range from 7 to 12 metres. The Latin name for the plant is *Olea europea* L.

Zaytūn has nutritional, medical, and industrial uses. It is cultivated for its fruit,

which is eaten after salination, or it may be pressed for its oil. The olive tree timber may be used for making brushes and sticks.

Olive oil (**zayt**) is extracted by pressing the olive pulp, either manually (which produces the best kind), or mechanically. The partially ripe fruit produces the most oil. The best quality oil is transparent golden yellow. Lesser quality types tend to be rather green in colour, and are used in soap-making.

Zayt al-zaytūn زيت الزيتون is the most important of food oils, being preferred in cooking to ghee and lard, because it is free from cholesterol.

The olive fruit is highly nutritious. It contains a large amount of fats, as well as proteins and minerals, particularly calcium and phosphorus. The fruit is eaten either green (fully grown but not completely ripe) or black (fully ripe). Because of its bitter taste, the fruit has to be processed before pickling, in order to soften it and lessen its bitterness.

Zaytūn and its derivatives appear in six places in the Holy Qur'ān.

And (then there are) gardens of grapes, and olives, and pomegranates, each similar (in kind) yet different (in variety).

(Q: S. 6, al-An`ām, 99). (الأنعام: ٩٩)

﴿وَجَنَّاتٍ مِّنْ أَعْنَابٍ وَالزَّيْتُونَ وَالرُّمَّانَ مُشْتَبِهًا وَغَيْرَ مُتَشَابِهٍ﴾

And dates and tilth with produce of all kinds, and olives and pomegranates.

(Q: S. 6, al-An`ām, 141). (الأنعام: ١٤١)

﴿وَالنَّخْلَ وَالزَّرْعَ مُخْتَلِفًا أُكُلُهُمُ وَالزَّيْتُونَ وَالرُّمَّانَ﴾

With it He produces for you corn, olives date palms and grapes,

(Q: S. 16, al-Nahl, 11). (النحل: ١١)

﴿يُنْبِتُ لَكُمْ بِهِ الزَّرْعَ وَالزَّيْتُونَ وَالنَّخِيلَ وَالْأَعْنَابَ﴾

By the fig and the olive,

(Q: S. 95, al-Tin, 1). (التين: ١)

﴿وَاللَّيْنِ وَالزَّيْتُونِ﴾

And produce therein corn, and grapes and nutritious plants, and olives and date.

(Q: S. 80, `Abasa, 27-29). (عبس: ٢٧ - ٢٩)

﴿فَابْتَنَّا فِيهَا حَبًّا وَعَنْبًا وَقَضَبًا﴾

Lit from a blessed tree, an olive, neither of the east nor of the west. ﴿يُوقَدُ مِنْ شَجَرَةٍ مُبَارَكَةٍ زَيْتُونَةٍ لَا شَرْقِيَّةٍ وَلَا غَرْبِيَّةٍ﴾

(Q: S. 24, al-Nūr, 35). (النور: ٣٥)

The olive has been described as "neither of the east nor of the west," implying (Allah is the Supremely Omniscient) that its oil is the best, purest, and most lustrous. However, interpreters differ with regard to what is meant by this qualification. The following are some of the most important of those interpretations.

1 – An olive tree is **lā sharqiyyatin wa lā gharbiyyah** لا شرقية ولا غربية neither of the east nor of the west, if it grows in places well-exposed to the sun, i.e. without shelter from the sun when it rises or when it sets. In other words, it is exposed to the sun from sunrise (the east) until dusk (the west).

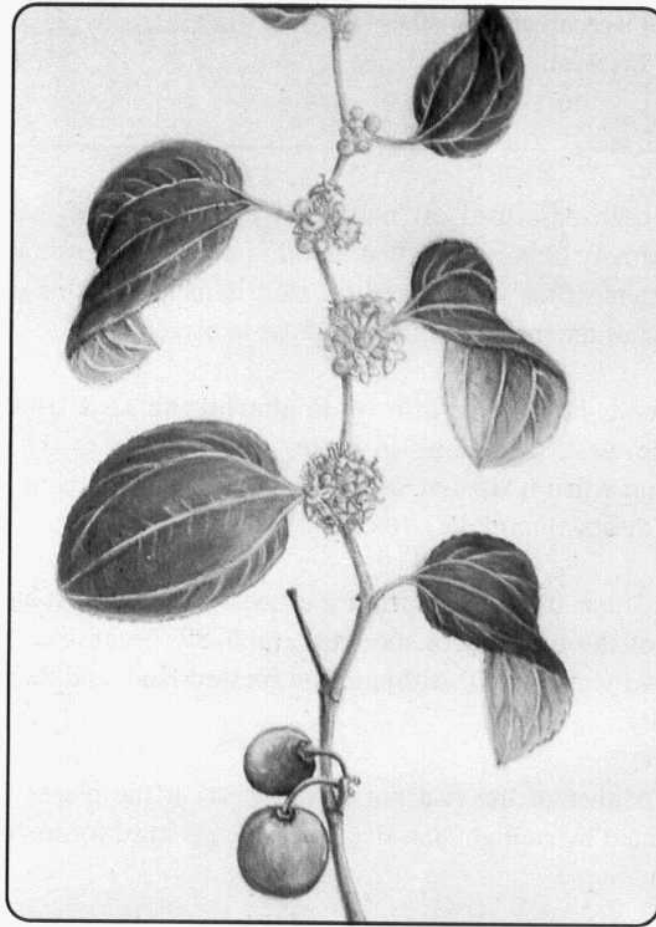
2 – This implies that the olive is from the trees of al-Shām الشام (Greater Syria), which is neither of the east nor of the west (probably because al-Shām was at the centre of the known world then). Al-Shām is a blessed land, and the olive of al-Shām is the best in quality.

3 – A tree is "neither of the east nor of the west" if the place where it grows is alternately frequented by sunlight and shadow, which is ideal for its fruition, and helps to purify its oil.

4 – Some interpreters have said, "in the midst of other trees where it is not exposed to sunlight from east or west". But Ibn `Aṭīyyah questions this interpretation, saying, "the yield of a fruit of this description decays – something we witness everywhere".

5 – It has been narrated after al-Ḥasan al-Baṣrī that this tree, which is used to exemplify the light of Allah, is not an earthly tree, because if it were, "it should be either of the east or west". Al-Tha`labī rejects this interpretation and says, "the Holy Qur`ān indicates that it is a worldly tree; **zaytūnah** زيتونة is used in apposition to the word tree preceding it".

Al-Ṭabarī and Ibn Kathīr favour the first interpretation, while al-Zamakhsharī favours the third. For these views, see al-Ṭabarī: 18/167; al-Durr al-Manthūr: 5/49; al-kashshāf: 3/77 and al-Qurṭubī: 12/259.



Sidr

﴿سدر Sidr﴾
(Christ thorn)

Sidr : سدر is mentioned four times in three **sūras** of the Holy Qurʾān. The first is when Allah the Most Sublime describes what happened to the people of Saba` when they turned their backs on the worship of Allah:

And We converted their two garden (rows) into "gardens" producing bitter fruit, and tamarisks, and some few (stunted) trees of Christ thorn.

﴿وَبَدَّلْنَاهُمْ جَنَّاتٍ ذَوَاتِ أَكْثَادٍ خَمْطٍ وَأَثَلٍ
وَشَقَىٰ عَمِّنْ سِدْرٍ قَلِيلٍ﴾

(Q: S. 34, Saba', 16). (سبأ: ١٦)

The second and third come in the context of the mention made by Allah the Most Sublime of **sidrati al-muntahā** سِدْرَةُ الْمُنْتَهَى (Christ-thorn tree in the seventh heaven).

Near it is the Garden of Abode. Behold, the Christ-thorn tree was shrouded (in mystery unspeakable!)

(Q: S. 53, al-Najm, 15, 16). (النجم: ١٥، ١٦)

﴿عِنْدَهَا جَنَّةُ الْمَأْوَىٰ إِذْ يَغْشَى السِّدْرَةَ مَا يَغْشَىٰ﴾.

The fourth reference is in the context of those who in the after-life will receive the Book of Heaven in their right hand, where Allah the All- Perfect says:

(They will be) among lote trees without thorns.

(Q: S. 56, al-Wāqī`ah, 28). (الواقعة: ٢٨)

﴿فِي سِدْرٍ مَّخْضُودٍ﴾.

Sidratu al-muntahā, which is in the Hereafter, is mentioned in the books of Qur'anic interpretation, the **Ḥadīth** (Prophetic Tradition), and all the Life of the Prophet (PBBUH), in connection with the **Mi`rāj** (Ascension to Heaven). Allah the Most Sublime says:

For indeed he saw Him at a second descent near the Christ-thorn tree beyond which none may pass. Near it is the Garden of Abode. Behold, the Christ-thorn tree was shrouded (in mystery unspeakable!)

(Q: S. 53, al-Najm, 13-16). (النجم: ١٣ - ١٦)

﴿وَلَقَدْ رَآهُ نَزْلَةً أُخْرَىٰ عِنْدَ سِدْرَةِ الْمُنْتَهَىٰ عِنْدَهَا جَنَّةُ الْمَأْوَىٰ إِذْ يَغْشَى السِّدْرَةَ مَا يَغْشَىٰ﴾.

Numerous views have been expressed concerning the term **sidrati al-muntahā**. Ibn Mas`ūd says, "It is the terminus of that which ascends from Earth to Heaven, and that which descends from Heaven to Earth. It is the point beyond which the soul cannot proceed". It is also interpreted as the point which ends the knowledge of each message-bearing prophet and each favoured angel. What is behind it is inscrutable and known only by Allah – how vast is the knowledge of Allah, the All-Perfect. One of the

other interpretations is that it is the final destination for the souls of martyrs, believers, and those who follow the tradition and the path of the Prophet. See al-Qurtubī: 17/95.

In the well-supported **Hadiths**, the fruit of the tree is as big as a huge earthenware jug, and its leaf as big as an elephant's ear. A horseman may ride in the shade of the tree for a hundred years; and at its foot flow four rivers (cf. Faḥ al-Bārī: 7/212-14; al-Qurtubī; Ibn Kathīr).

(For **sidr** in connection with the bliss of those who receive their Book of Heaven with their right hands, see **makhḍūd** مخضود).

Now to the well-known Christ-thorn tree.

Sidr is a tree with ovate leaves, each of which has three veins extending from the base of the blade. Some kinds of **sidr** may have thorny stipules growing at the leaf-base; others have no thorns, particularly those which grow in humid areas, or are sufficiently irrigated. The **sidr** includes many varieties that grow in dry regions; some grow in the deserts of the Arab world, North Africa, the Arabian Peninsula, Iran, India, and Pakistan.

The fruit of the **sidr** is known as **nabiq** (nabq) نَبِيق or **konār** کنار (Persian), which is reasonably tasty and globose. Some other varieties of **sidr** produce approximately oblong-shaped fruit; this variety is produced by grafting on the thorny wild variety. It is widely grown in the Arabian Gulf region, India, and Iran. One species, common in Iran, produces the jujube (lat. *Zizyphus jujuba*).

The **sidr** that grows in dry regions is thorny, and was termed **al-ḍāl** الضال by the early Arabs. The **sidr** found in irrigated regions is less thorny, sometimes without thorns, and is known to the Arabs as **al-ʿibrī**.

The Latin name for **sidr** is *Zizyphus spina christi* (L.) Willd. Other species grow in Arab countries, e.g. *Zizyphus nummularia* (Burm.f.) Wight Arn. **Sidr** belongs to the family Rhamnaceae.

There is mention of **sidr** in the account of the Prophet's life, particularly in connection with the washing of the dead. **Hadith** (on reliable authority) recommends washing the dead with water and **sidr**. Some women of the Arabian Gulf region still wash their hair with powder of the dried **sidr** leaves. Very recently, natural saponins and sapogenins have been extracted from **sidr**. In addition, **sidr** fruit is edible, its trees are shady, and check the movement of the sand, thus reducing soil erosion.



Sunbulah

﴿سنبلة Sunbulah﴾
(spike)

Sunbul سنبيل : the parts of the plant where the grain is formed, pl. **sanābil** سنابل, sing. **sunbulah** سنبلة (bot.). **Sanbala al-zar`** سنبيل الزرع is said when the spike of a grass has appeared. **Sanābil: Sanābilu al-zar` mina al-burri wa al-sha`ir** سنابل الزرع من البر والشعير: the spikes of wheat and barley. **Sunbulah** is a type of inflorescence such as that of wheat and barley. The inflorescence consists of many spikelets, each of which produces one grain in the case of barley, and more in the case of wheat. The number of grains produced by each spike depends on several factors, including the species and strain of the plant, as well as soil fertility, and various environmental factors, particularly water resources. In years of drought, the number of grains in each spikelet and spike decreases, and it increases in wet years. The number of tillers also increases and each carries a spike. In this way, there is an increase in the number of spikes and grains produced by one plant originating from one grain (see **shṭ'**).

The word and its derivatives appear in four `Āyas of two sūras. Allah the Most Sublime says:

The parable of those who spend their substance in the way of God is that of a grain (of corn); it groweth seven ears, and each ear hath a hundred grains.

(Q: S. 2, al-Baqarah, 261). (البقرة: ٢٦١)

﴿كَمَثَلِ حَبَّةٍ أَنْبَتَتْ سَبْعَ سَنَابِلٍ فِي كُلِّ سُنْبُلَةٍ مِائَةُ حَبَّةٍ﴾

Allah the Praised says:

The king (of Egypt) said: I do see (in a vision) seven fat cows, which seven lean ones devour, and seven green ears (of corn), and (seven) others withered.

(Q: S. 12, Yūsuf, 43). (يوسف: ٤٣)

﴿وَقَالَ الْمَلِكُ إِنِّي أَرَى سَبْعَ بَقَرَاتٍ سِمَانٍ يَأْكُلُهُنَّ سَبْعٌ عِجَافٌ وَسَبْعَ سُنبُلَاتٍ خُضْرٍ وَأُخَرَ يَابِسَاتٍ﴾

He also says:

And the harvests that ye reap, ye shall leave them in the ear.

(Q: S. 12, Yūsuf, 47). (يوسف: ٤٧)

﴿فَاحْصَدْتُمْ فَذَرُوهُ فِي سُنْبُلِهِ﴾

It should be mentioned here that leaving the grains in their spikes lengthens their lifespan, and renders them relatively immune to harmful environmental factors, additionally immune to insects, fungi, and bacteria. To store them while still in their spikes provides protection against those factors. The order to leave the grains inside their spikes is of great benefit in preserving the grains and enhancing for the longest time possible their viability.

﴿سوق Sūq﴾ (stem, stalk, trunk)

سوق Sūq (stems) and its derivatives are mentioned at various points in the Holy Qurʾān, with differing meanings depending on the linguistic context. With regard to plants, it appears once.

..., it then becomes thick, and it stands on its own stem, filling the sowers with wonder and delights.

﴿فَاسْتَعْلَظَ فَاسْتَوَىٰ عَلَىٰ سُوقِهِ يُعْجِبُ الزُّرَّاعَ﴾

(Q: S. 48, al-Faṭḥ, 29). (الفتح: ٢٩)

Arabic lexicographers define **Sāqu al-shajara** ساق الشجرة (trunk, stalk, stem) as the main part on which branches grow (bot.). In other contexts, it refers to the part of the leg between the foot and the knee-cap. It is used for tree, animal, bird and man. Whatever grows on a **sāq** is **shajar** شجر; whatever does not is **najm** نجم (an acaulescent plant). The stem of a plant is that part which usually grows above the ground, and is connected to the roots which are sunk into the soil. A stem has branches and boughs which carry the leaves. A plant stem will not stand firm until it thickens and strengthens sufficiently to take the weight of the leaves, flowers, and fruit. See **zarʿ**, **shaṭʿ**.

﴿سوم Sawm﴾ (open grazing, brand, mark,)

As it appears in the Holy Qurʾān, **Sawm** سوم has several meanings. In the botanical context, the Holy Revelation says:

It is He who sends down rain from the sky. From it ye drink, and out of it (grows) the vegetation on which ye feed your cattle.

﴿هُوَ الَّذِي أَنْزَلَ مِنَ السَّمَاءِ مَاءً لَكُمْ مِنْهُ شَرَابٌ
وَمِنْهُ شَجَرٌ فِيهِ تُسِيمُونَ﴾

(Q: S. 16, al-Naḥl, 10). (النحل: ١٠)

Al-Sāʾimah السائمة refers to animals that graze freely, **sawm** (n). **ʿAsāmahā** أسامها and **sawwamahā** سومها (v.) made it graze; took it out to graze.

Allah the Most Exalted, the Most Sublime's phrase, **al-khayl al-musawwamah** الخيل المسومة has been interpreted as "horses, grazed in meadows and other green lands". It has also been interpreted as "horses that have been branded" in order to distinguish them from other horses; or, that they are white-footed, with blazes on their foreheads; or, they are beautiful, they have been marked (i.e. distinguished) by beauty, an analogy of the phrase, **rajulun wasīm** رجل وسيم a handsome man, (cf. al-Qurtubī, 4/33, 34; 10/82).

﴿سوى Sawwā﴾ (mature, ripen)

Istawā al-shayʿ استوى الشيء the thing straightened; **istawā al-rajul** استوى الرجل the man has matured.

This lexical item appears on numerous occasions in the Holy Qurʾān. 'Istiwā', when found in its botanical context, means full ripeness. It appears only in one 'Āyah:

Like a plant which sends forth its tiller,
then makes it strong: it then becomes
thick, and it stands on its own stem.

﴿كَزَرَ عَظْمٌ أَخْرَجَ سَطَكُهُ فَتَازَرَهُ فَاسْتَغْلَظَ فَاسْتَوَى
عَلَى سَوْفِهِ﴾

(Q: S. 48, al-Faṭḥ, 29). (الفتح: ٢٩)

Here, the implication is that it is fully ripe, but it is still on the stem (cf. **zarʿ**).

﴿شجر Shajar﴾ (tree, dispute)

Shajar شجر and its derivatives appear 27 times in the Holy Qurʾān, all in the sense of **ʿashjār al-nabt** اشجار النبات (trees), except for once, when it implies dispute or conflict.

But no, by the Lord, they can have no
(real) faith, until they make thee judge
in all disputes between them.

﴿حَتَّى يُحْكُمُواكَ فِي مَا شَجَرَ بَيْنَهُمْ فَلَا وَرَيْكَ
لَا يُؤْمِنُونَ﴾

(Q: S. 4, al-Nisāʾ, 65). (النساء: ٦٥)

In all other *Āyas* (at twenty-six points in eighteen *sūras*), it appears in the sense of **al-shajar mina al-nabāt**, meaning all that grows from a stem, stalk, or trunk. It has been said that **shajar** is all that stands on its own, large or small, sing: **shajarah**.

In the Holy Revelation, Allah the Almighty says:

Allah's good pleasure was on the believers when they swore fealty to thee under the tree.

﴿لَقَدْ رَضِيَ اللَّهُ عَنِ الْمُؤْمِنِينَ إِذْ يُبَايِعُونَكَ تَحْتَ الشَّجَرَةِ﴾

(Q: S. 48, al-Fath, 18). (الفتح: ١٨)

The tree under which loyalty was pledged to the Prophet Mohammad (PBBUH) is said to be **samurah** **سمرة**. In his *Ṣaḥīḥ صحيح*, Moslem relates a **Ḥadīth** where **samurah** appears as the tree under which allegiance was sworn to the Prophet Mohammad (PBBUH). On the authority of Jābir «on the day of Ḥudaibiya, 1,400 of us swore loyalty to Him, while Omar took His hand under the tree, which was a **samurah سمرة**». **Samor** (*Acacia tortilis*) is one of the huge thorny trees belonging to the genus *Acacia* which includes other species such as **salam سلم**, **ṣanṭ** and **ṭalḥ**. These species grow in the deserts of many Arab countries.

The **shajarah**, which Adam was ordered not to eat from, is mentioned on five occasions. The **zaqqūm** tree (the accursed tree) is mentioned three times (see **zaqqūm**). For the blessed tree, see **zaytūn**; for good tree, see **nakhl**, and see **yaqīn**.

Allah the Most Exalted says:

And the parable of an evil word is that of an evil tree. It is torn up by the root from the surface of the earth; it has no stability.

﴿وَمَثَلُ كَلِمَةٍ خَبِيثَةٍ كَشَجَرَةٍ خَبِيثَةٍ اجْتُثَّتْ مِنْ فَوْقِ الْأَرْضِ مَا لَهَا مِنْ قَرَارٍ﴾

(Q: S. 14. Ibrāhīm, 26). (ابراهيم: ٢٦)

Al-jathth الجث (tearing up) is a derivative of **jathth جث**, i.e. to sever from the root. The tree appearing in the verse is a symbol for **shirk الشرك** (polytheism). It is adopted by the unbeliever without evidence. No matter how good the deeds of the polytheist, Allah will never accept them (al-Durr al-Manthūr, 4/75). Interpreters are in

disagreement over the identification of the tree without root or branch. The most correct interpretation is that it is **al-ḥanẓalah** (*Citrullus*). On the authority of Ibn `Abbās, it is not an earthly tree (Durr, 4/77; al-Qurṭubī, 9/362).

In the context of the story of Moses (PBUH), Allah the Most Exalted says that when he saw a fire he approached it:

But when he came to the (fire), a voice was heard from the right bank of the valley, from a tree in hallowed ground: "O Moses! Verily I am Allah, the Lord of the worlds.

﴿ فَلَمَّا أَتَاهَا نُودِيَ مِنْ شَاطِئِ الْوَادِ الْأَيْمَنِ فِي الْبُقْعَةِ الْمُبَارَكَةِ مِنَ الشَّجَرَةِ أَنْ يَمْوِصَ إِبْرَاهِيمُ أَنَا اللَّهُ رَبُّ الْعَالَمِينَ ﴾

(Q: S. 28, al-Qaṣaṣ, 30). (القصص: ٣٠)

In the interpretation, the aforementioned tree is **samurah** سمره which has been reported similarly on the authority of `Abdullah Ibn Mas`ūd. It is said that it is a type of bramble, the box-thorn, **gharqad** غرقد , or jujube (Ibn kathīr: 3/399; al-Durr al-Manthūr: 5/128; al-Qurṭubī:13/282).

The Latin name for **samor** is *Acacia tortilis* (Forssk). Hayne = *A. spirocarpa* Hochst. ex A. Rich.), a tree which grows to a height of about 12m. The top of the tree is flattened, giving it the appearance of an umbrella. The branches are thorny. Some of these thorns are long, straight and white; others are small and sharply hooked, with a black or brown tip. The flowers are yellowish white. Pods are hooked or bent, yellow or brown. **Samor** is found in the Arabian Peninsula, North and Central Sudan, and rarely in Egypt. It grows in sandy soil.

Al-`ullayq العليق (bramble) is used in Arabic for a number of plants which belong to various genera and families, which have none of the properties of **shajarah**.

Al-`awsaj العوسج (frutex) is a desert plant whose Latin name is *Lycium shawii* Roem. et Schult. = *Lycium arabicum* Schweinf. ex. Boiss. It belongs to the family Solanaceae, which also includes tomatoes and potatoes. **`Awsaj** is a thorny bush which grows to the height of an average man, or less. It produces long narrow leaves which grow from the nodes in groups. The flowers are either single or in pairs; they are long, thin, and crimson. The small fruit is red in colour, globular or ovoid in shape, and edible. It is called **maṣ`** مصع .

Al-gharqad الغرقد or **al-ghardaq** الغردق (Lat. *Nitraria retusa* Forssk.) is a plant which grows in the dry saline regions of the Arab world. It belongs to the family Nitrariaceae. It is a thorny bush which grows to the average height of a man; its leaves are short, thick, and broad; its flowers are minute, yellowish or greenish white. The small globular fruit is edible, with a hard stone like that of a small cherry. The dense growth of the **gharqad** branches causes sand to accumulate and the base, forming dunes larger than those formed around **`awsaj**.

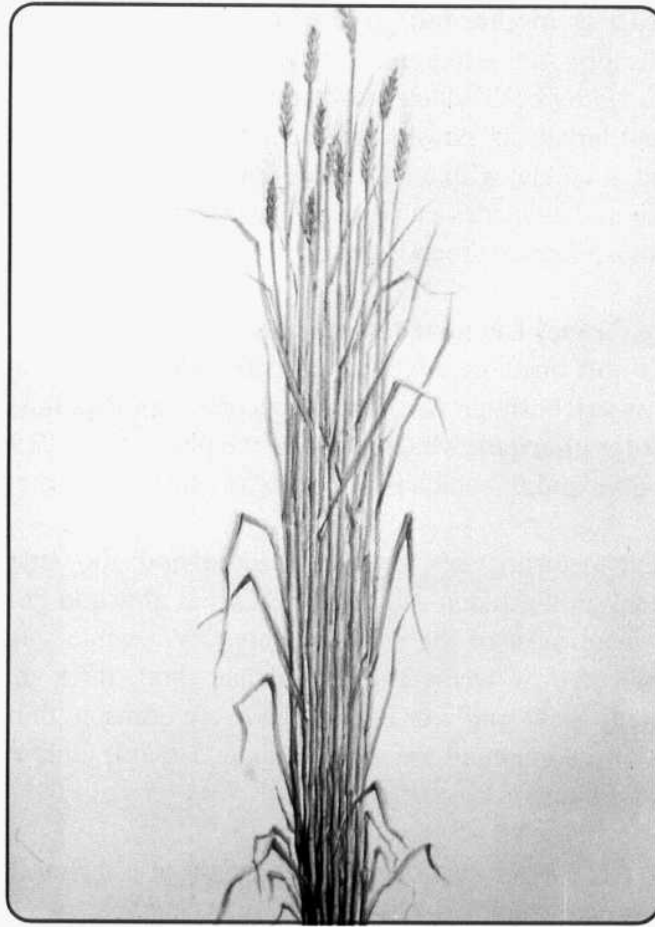
From a distance, **`awsaj** and **gharqad** may be confused. Some commentators have said: **gharqad** is a **qoff** plant, or a big **`awsaj**, sing. **gharqadah** غرقدة. Abū Ḥanīfah said, "when an **`awsaj** bush grows large it becomes **gharqadah**. In the signs of Doomsday: except for **gharqad**, which is one of the plants of the Jews". In a different narrative: "except **gharqadah**, which is a huge thorny tree".

It is not difficult to distinguish **`awsaj** from **gharqad**; they seldom grow in the same habitat. **`Awsaj** grows in non-saline sand, whereas **gharqad** grows in areas of up to 15% salinity, where most of the soil is covered by a white saline crust. **`Awsaj** leaves are long and narrow whereas **gharqad** has short, thick, broad leaves. The flowers of the **`awsaj** grow singly or in pairs: they are crimson, thin and long (10-15 mm.); the flowers of the **gharqad** are minute (about 5 mm.), grouped in clusters, and greenish or yellowish white in colour.

Al-`unnāb العناب is a shrub that may reach a height of 8 metres. It produces a soft ovoid fruit, red or black, which has a hard stone. It has medical uses (as an expectorant and blood purifier). Its Latin name is *Zizyphus jujuba* Mill. It belongs to the same genus as **sidr** (see **sidr**).

﴿Shat' شطء﴾ (tiller)

Al-shat' الشطء is the tiller of a plant or palm. **Shaṭū al-shajar** شطء الشجر what grows around its main body. **Shaṭaá** شطا or **'ashtaá a zar'** اشطا الزرع: the plant has produced a tiller. Not all plants produce tillers: it occurs in wheat, barley, or palm-trees. In the case of wheat and barley, one grain may produce a plant with one stem or more, depending upon the strain, level of soil fertility, and environmental conditions. A plant may grow from 5 to 7 tillers. Allah the Most Sublime describes the companions of Allah's Messenger (PBBUH) in these terms:



Shaṭ'

And their similitude in the Gospel is like a plant which sends forth its tiller, then makes it strong; it then becomes thick, and it stands on its own stem, filling the sowers with wonder and delight.

﴿وَمَثَلُهُمْ فِي الْآيَاتِ كَزَرْعٍ أَخْرَجَ شَطْعَهُ فَكَانَ زَرْعًا
فَاسْتَغْلَظَ فَاسْتَوَىٰ عَلَىٰ سُوقِهِ يُعْجِبُ الزُّرَّاعَ﴾

(Q: S. 48, al-Faṭḥ, 29). (الفتح: ٢٩)

The presence of tillers supporting each other enhances the productivity of the plant. The phrase "**fa'āzarahu**" فَازَرَهُ (then makes it strong), means lends it support. Some interpreters, such as al-Farrā' الفراء and Quṭrub قطرب, have defined **shaṭ'** as **sunbul** (spike). (See **zar`**).

﴿شق شق﴾
(fissure, split open)

This lexical item and its derivatives appear with various meanings in a number of places in the Holy Qur'ān. In the context of plant and soil, it is found in the 'Āyas where Allah the Most Sublime says:

And We split the earth in fragments,
and produce therein grain.

﴿ثُمَّ شَقَقْنَا الْأَرْضَ شَقًّا فَأَنْبَتْنَا فِيهَا حَبًّا﴾

(Q: S. 80, 'Abasa, 26, 27). (عيس: ٢٦ ، ٢٧)

Shaqq شق means fissure; **shaqqa al-shay'** شق الشيء s.b. cleaved s.t, caused it to crack; **shaqqa al-ārd**: he ploughed/tilled the earth. Most interpreters are of the opinion that **shaqq** refers to the emergence of the plant from the soil. Ibn Kathīr says that the 'Āyah:

For that We pour forth water in
abundance.

﴿أَنَّا صَبَبْنَا الْمَاءَ صَبًّا﴾

(Q: S. 80, 'Abasa, 25). (عيس: ٢٥)

means We made the rain fall from the sky on to the earth. Ibn Kathīr adds that the 'Āyah:

And We split the earth in fragments,
and produce therein grain.

﴿ثُمَّ شَقَقْنَا الْأَرْضَ شَقًّا فَأَنْبَتْنَا فِيهَا حَبًّا﴾

(Q: S. 80, 'Abasa, 26,27). (عيس: ٢٦ ، ٢٧)

implies that He made the rain settle there, penetrate its depths, and seep into the seeds therein, thereby causing them to germinate and emerge through the earth's surface.

Shaqq may be effected by man, as in the case of tillage (cf. al-Kashshāf: 4/186). It is said that ascribing **shaqq** to Himself is to ascribe the effect to the cause.

It is probable (Allah is the All-Omniscient) that what is meant by **shaqq** is the presence of pores separating the granules of the soil. If the soil were without pores, the

plant would not grow. The presence of pores allows water to seep through and to fill the capillary pores, thus providing the plant with its requirements of water and dissolved nutrients. The larger non-capillary pores contain air, which provide the oxygen necessary for root respiration. The porousness of the soil is one of its physical properties that contribute to the germination and the growth of the plant.

﴿صَبْغٌ Sabgh﴾ (condiment, relish)

صَبْغٌ Sabgh : condiment which is added to bread. If someone says **ṣabagha al-luqmata ṣabghan صبغا اللقمة صبغا** he means he has spread (**dahana دهن**) something on a piece of bread, or dipped it (**ghamasahā غمسها**). What has been **ghumisa غمس** (dipped) has been **ṣubigha** (dipped, soaked).

The Holy Revelation says:

Also a tree springing out of Mount Sinai; which produces oil and relish for those who use it for food.

﴿وَشَجَرَةً تَخْرُجُ مِنْ طُورِ سَيْنَاءَ تَنْبُتُ بِالذَّهْنِ وَصَبْغٍ
لِّأَكْلٍ﴾

(Q: S. 23, al-Mu'minūn, 20). (المؤمنون: ٢٠)

Al-ṣibgh الصبغ is the oil contained in the olive fruit; it is what something may be dipped in.

﴿صَرِيمٌ Ṣarīm﴾

Al-ṣarm الصرم is the act of felling, such as the felling of palm trees and the like. It may be used figuratively. **Al-ṣarīm الصريم** means **al-ʿazīma العزيمة**: will **Ṣarīm**, i.e. **maṣrūm مصروم** something cut, or chopped down. If you say, **shajarun ṣarīm شجر صريم**, you mean that the fruit of that tree has been collected, and if you say **ʿarḍun ṣarīm أرض صريم** it means land whose crop has been reaped. Included in the meanings of **ṣarīm** is stark soil which produces nothing.

This lexical entry appears in the Holy Qurʾān as a verb, **yaṣrim يصرم**, as an active

noun indicating the doer, **ṣārimīn** صارمين , and as a passive noun indicating the effect of the action (**ṣarīm**). All appear in the story of the people of the Garden in al-Qalam sūrah:

Verily We have tried them as We tried the people of the Garden, when they resolved to gather the fruits of the (garden) in the morning.

﴿ إِنَّا لَنَبْلُوَنَّهُمْ كَمَا بَلَوْنَا أَصْحَابَ الْجَنَّةِ إِذْ أَقْسَمُوا لَيَصْرِمُنَّهَا مُصْبِحِينَ ﴾

(Q: S. 68, al-Qalam, 17). (القلم: ١٧)

So the (garden) became, by the morning, like a dark and desolate spot, (whose fruit had been gathered).

﴿ فَاصْبَحَتْ كَالصَّرِيمِ ﴾

(Q: S. 68, al-Qalam, 20). (القلم: ٢٠)

Go ye to your tilth (Betimes) in the morning if ye would gather the fruits.

﴿ أَنْ أَغْدُوَ عَلَىٰ حَرْدٍ إِنْ كُنْتُمْ صَّارِمِينَ ﴾

(Q: S. 68, al-Qalam, 22). (القلم: ٢٢)

﴿ صَعِيد Sa`īd ﴾

Lexically, **Sa`īd** صعيد has been interpreted as a raised area of land, surface of the land, or soil.

The word appears four times in the Holy Qur`ān, twice in the context of **tayammum** تيمم, i.e. dry ablution. Allah the Almighty says:

Then take for yourselves clean sand or earth.

﴿ فَتَيَمَّمُوا صَعِيدًا طَيِّبًا ﴾

(Q: S. 4, al-Nisā', 43). (النساء: ٤٣)

(Q: S. 5, al-Mā'idah, 6). (المائدة: ٦)

There is disagreement amongst jurists (Islamic jurisprudence experts: **fuqahā'**

طيباً **ṭayyibān** (الطهارة) over the meaning of **ṣaʿīd**, because it has been qualified as **ṭayyibān** clean. (cf. **tayammum** تيمم).

Allah the Most Sublime says:

That which is on earth We have made but as a glittering show for the earth in order that We may test them - as to which of them are best in conduct.

﴿إِنَّا جَعَلْنَا مَا عَلَى الْأَرْضِ زِينَةً لِّهَا لِنَبْلُوهُمْ أَيُّهُمْ أَحْسَنُ عَمَلًا﴾

Verily what is on earth We shall make but as dust and dry soil (without growth or herbage).

﴿وَأِنَّا لَجَاعِلُونَ مَا عَلَيْهَا صَعِيدًا جُرُثًا﴾

(Q: S. 18, al-Kahf, 7, 8). (الكهف: ٧، ٨)

This implies that what is on earth will perish. The reference is to Allah the Almighty, who will punish the unbeliever and reward the believer. These two **Āyas** were revealed in order to console the Prophet (PBBUH) in his despondency at the unbelievers' lack of faith. **Ṣaʿīd** is here interpreted as the surface of the earth, or soil. In the dialogue between the believer and the unbeliever, the former says:

It may be that my Lord will give me something better than thy garden, and that He will send on thy garden thunderbolts (by way of reckoning) from heaven, making it (but) slippery sand!

﴿فَعَسَىٰ رَبِّي أَن يُؤْتِيَنِي خَيْرًا مِّنْ جَنَّتِكَ وَيُرْسِلَ عَلَيْهَا حُسْبَانًا مِّنَ السَّمَاءِ فَتُصْبِحُ صَعِيدًا زَلَقًا﴾

(Q: S. 18, al-Kahf, 40). (الكهف: ٤٠)

Here, **Ṣaʿīd** means barren land, where no vegetation grows and where no foot may stand. Al-Zajjāj says, "**Ṣaʿīd** is the surface because it is the end of what. (**yuṣʿadu** يُصْعَدُ إِلَيْهِ) is ascended to from the earth's core". Al-layth says, "A garden when it is devastated and left treeless is described as **ṣaʿīd**, i.e. flat, treeless land". Also see al-Qurtubī: 5/236, 10/348, 10/355, 10/408.

﴿صَفْصَفٌ Ṣafṣaf﴾

‘Arḍun ṣafṣaf أرض صفف smooth and level land. In the Qur’anic Revelation, it is stated:

He will leave them as plains, smooth and level.

(Q: S. 20, Tāha, 106). (طه: ١٠٦)

﴿فَيَذَرُهَا قَاعًا صَفْصَفًا﴾

Al-Farrā’ states: "al-ṣafṣaf is that which lacks any vegetation". Ibn al-Aʿrābī states: "al-ṣafṣaf is al-qurʿā' القرعاء" (i.e. land devoid of any vegetation). Mujāhid states that ṣafṣaf in "qāʿan ṣafṣafan" قاعا صفصفا means level. Ṣafṣaf may also mean falāh الفلاة (i.e. an open area of arid desert).

﴿صِنْوَانٌ Ṣinwān﴾

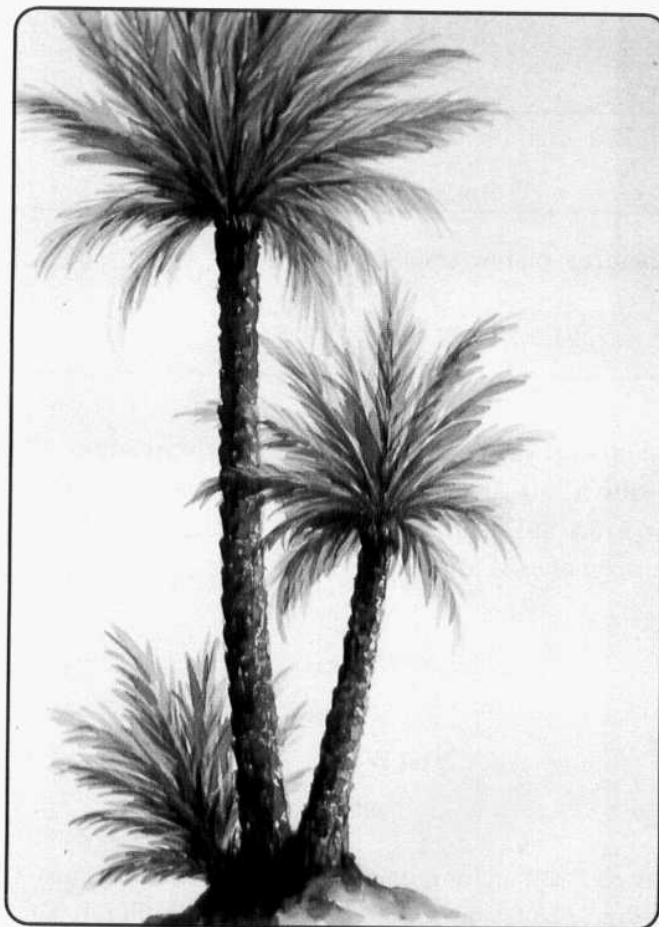
(identical)

Ṣinw صنو is used for matching or identical objects. It denotes a tiller or offshoot, belonging to the same plant, and it may be used for the plural. The basic meaning of ṣinw refers to two or more trees originating from the same base. Each of them is ṣinw; dual, ṣinwān صنوان, pl. ṣinwān صنوان. Thus, ghayru al-ṣinw غير الصنو and ghayru ṣinwān غير صنوان are used to denote plants originating from different rootstocks. Ṣinwān is mentioned twice in one ʿĀyah in the Holy Qurʾān, when Allah the Most Sublime says:

And in the earth are tracts (diverse though) neighbouring, and gardens of vines and fields sown with corn and palm-trees – growing out of single roots or otherwise: watered with the same water, yet some of them We make more excellent than others to eat.

(Q: S. 13, al-Raʿd, 4). (الرعد: ٤)

﴿وَفِي الْأَرْضِ قِطْعٌ مُتَجَاوِرَاتٌ وَجَنَّاتٌ مِنْ أَعْنَابٍ
وَزَرْعٌ وَنَخِيلٌ صِنْوَانٌ وَغَيْرُ صِنْوَانٍ يُسْقَى بِمَاءٍ وَاحِدٍ
وَنُفِضَ بَعْضُهَا عَلَى بَعْضٍ فِي الْأَكْلِ﴾



Şinwān

Botanically, the seed produced by any plant species is the result of the fusion of a pollen grain and an ovule in the ovary of the flower. Pollen grains may be from the same flower whose ovule has been fertilized, or another flower, or a flower carried by another individual of the same species. Thus, in many cases, pollen grains originate in flowers and plants genetically different from those where the ovule originates. This is a major reason for the genetic distinction among the seeds produced. In all cases, the seed carries the properties of the two parent plants. Plants produced in this manner are **ghayru şinwān** (non-identical). This means that seed formation has involved hybridization a process where genetic properties are combined to produce plants with properties that may be different from the parent plants. Researchers make use of this phenomenon to breed plants and develop more productive and disease-resistant strains. Nowadays, we have a very large number of strains, especially of the edible species which have been produced by ongoing hybridization. For example, we see a wide variety of shape, taste, and colour of water melon, which all belong to the same

species. We also notice that in palm-trees, mango, and grapes, etc., strains of the same species are planted in the same location, irrigated by the same water, yet they remain distinctively different in colour, shape, size, and taste. All these properties which we see or taste are the product of genetic traits passed on through generations from one plant to another.

Plants produced from cloning, grafting, layering, tuber or bulb or stem cuttings carry genetic properties identical to those of the original plant. They are **ṣinwān**.

﴿ضريع دارى﴾

In the Holy Qurʾān, **al-darī** الضريع is a food consumed by the inhabitants of Hell. It is mentioned once by Allah the All-Perfect.

No food will there be for them but a bitter darī which will neither nourish nor satisfy hunger.

﴿لَيْسَ لَهُمْ طَعَامٌ إِلَّا مِنْ ضَرِيعٍ لَا يَئْتِيهِمْ إِلَّا يَجْنُوعٌ﴾

(Q: S. 88, al-Ghāshiyah, 6, 7). (الغاشية: ٦ ، ٧)

Most interpreters take the view that **darī** refers to a plant called **shabraq** شبرق when fresh, but **darī** when dry. It was described by ʿIkrimah as a thorny shrub close to the ground. ʿAbū Ḥanīfah al-Dīnawarī defines it as follows: "a bad plant for grazing, which does not help cattle to accumulate fat and meat. If they continue to eat from it, the cattle will grow leaner".

ʿAbū al-Jawzāʾ says it is **al-sillah** السلة plant, or **al-sillā** السلاء. Some interpreters have broadened the concept to imply any tree that is dry.

Ahmad Isa differentiates **darī**, **shabraq**, and **sillah**. He says, **shabraq** is *Covolulus hystrix* Vahl when fresh, but when it is dry it becomes **darī**; **silla** is *Zilla spinosa* (Turra) Prantl. All of them grow in Arabia, and are small thorny shrubs.

Saʿīd Ibn Jubayr once interpreted it as **zaqqūm** (cf. **zaqqūm**), and once as stones.

Some interpreters hold the opinion that **darī** is a tree of Hell, or that it is some form of punishment that Allah has reserved for them, or, as the name indicates, that it is a kind of food which when eaten causes the unbelievers to supplicate and yield. It has been so termed because once eaten, one begs to be excused from eating it on account of its bad taste and roughness.

Be that as it may, al-Rāghib says, "whatever the case, it denotes something abominable".

﴿ **Ṭa`ām** طعام ﴾
(food)

The term, **ṭa`ām** طعام denotes the general topic of food. **Ṭa`ām** as a noun encompasses all that is consumed as nutrition, including water. For example, Allah the Most Sublime says:

Allah will test you at the stream; if any drinks of its water, he goes not with my army; only those who taste not of it go with me.

﴿إِنَّا لَنَنبِّئُكُمْ بِمَا كُنتُمْ تَعْمَلُونَ﴾
﴿فَلَيْسَ مِنِّي وَمَنْ لَّمْ يَطْعَمْهُ فَإِنَّهُ مِنِّي﴾

(Q: S. 2, al-Baqarah, 249). (البقرة: ٢٤٩)

Ṭa`ām may be of vegetable or animal origin. However, plants are the original source in producing the food derived from animals, since the base of the nutrition they constitute pyramid.

Ṭa`ām and its derivatives appear 48 times in the Holy Qur`ān. Among these `Āyas is:

Then let man look at (consider) his food, (and how We provide it):

﴿فَلْيَنْظُرِ الْإِنْسَانُ إِلَى طَعَامِهِ﴾

(Q: S. 80, `Abasa, 24). (عبس: ٢٤)

In this `Āyah and the following `Āyas it is explained that although only a few plants are mentioned, they represent food and medication for men, and fodder for cattle. Plants are then underlined in connection with the contemplation of one's food because the animals and animal products we depend upon, in their turn depend upon the presence of plants.

﴿ **Ṭalḥ** طَلَح ﴾
(Acacia raddiana, banana)

Al-ṭalḥ الطَلَح is referred to once in the Holy Qurʾān, where Allah the All-Perfect speaks of the comfort of the people who receive the Book of Heaven with their right hands:

The Companions of the right hand,
what will be the Companions of the
right hand?

(They will be) among lote (lotus) trees
without thorns, among ṭalḥ trees with
flowers (or fruits) piled one above
another.

﴿ وَأَصْحَابُ الْيَمِينِ مَا أَصْحَابُ الْيَمِينِ فِي سِدْرٍ مَّخْضُودٍ
وَطَلَحٍ مَّنْضُودٍ ﴾

(Q: S. 56, al-Wāqīʿah, 27-29). (الواقعة: ٢٧-٢٩)

The master of all the interpreters, Moḥammad Ibn Jarīr al-Ṭabarī (27/104), says, "ṭalḥ, according to Muʿammar Ibn al-Muthannā, is, for the Arabs, a huge thorny tree. But, according to interpreters from among the Prophet's companions and followers, it is the banana tree". What Ibn Jarīr says is what is found in all the interpretations that appeared after him.

Abū Ḥanifa al-Dīnawarī describes **al-ṭalḥ** (Lisān al-ʿArab, **ṭalḥ**) as follows: "**Ṭalḥ** is the largest of all the huge thorny trees, it has the most leaves, and is the most green in colour. It has long, large thorns which are the least harmful. One hardly feels its prick in the foot. It has an odorous flower. There is no other large thorny tree that is bigger, or has more gum than it does. It grows only in exceedingly fertile soil. Sing. **ṭalḥah** طَلْحَة".

In the Book of al-Shajar, ascribed to Ibn Khālawayh, **ṭalḥah** is "a thorny tree, which grows in the Hijaz and Najd. Its fruit is like that of **samor**. The container for the **ṭalḥ** fruit is **ʿollaf**, sing. **ʿollafah** عِلْفَة. It grows in valley beds.

In the above ʿĀyah, **ṭalḥ** is described as **mandūd** مَنْضُود which may be interpreted as fruit or foliage closely arranged from top to base, so that the trunk is entirely concealed (al-Kashshāf, al-Shawkānī, al-Lisān, **naḍāda**).

Ṭalḥ is the generic term for thorny trees that range in height from 5 to 8 metres. It is found in the valleys of the Hijaz, and also grows in the Egyptian desert, and in

North and Central Sudan. It forms open woodlands. The tree produces odorous flowers, and its fruit is elongated, curved, and flattened and is eaten by camels. **Talḥ** belongs to the family Leguminosae, subfamily Mimosoideae which also includes **salam**, **samor** and **sanṭ**. The Latin name of **talḥ** is *Acacia raddiana* Savi.

As said above, **Talḥ** may also mean banana.

In the above **ʿĀyah**, **talḥ** most probably refers to banana rather than *Acacia raddiana*. It is described as **mandūd** منضود, i.e. well arranged. The "gloves" or "combs" of banana are closely and well arranged, whereas the foliage, flowers or fruits of *Acacia raddiana* cannot be described as **mandūd**.

The banana "tree" is widely known as one of the most important tropical plants. It is probably the oldest cultivated crop known to the ancient civilisations. It was familiar to the Assyrians in 1100 B.C., and was transported to the West Indies in 1500 A.D.

The banana tree may grow to a height of 3 to 9 metres. It has large oblong oval leaves; it carries one inflorescence consisting of many groups of flowers. When the flowers later give rise to fruits, the inflorescence dangles under its weight, and carries 6 to 14 clusters called "gloves" or "combs", with 10-20 individual bananas in each. The cultivated banana is a seedless berry. Wild bananas have seeds.

The banana tree belongs to the genus *Musa*, which belongs to the family Musaceae. The Latin name for the banana is *Musa paradisiaca*, subsp. *sapientum* (L.) Kuntze.

Banana includes about 300 varieties and is cultivated mainly in Jamaica, and in Central and South America. They are rich in carbohydrates and also contains protein and fat. It is usually eaten raw, but is sometimes cooked.

﴿ **Talʿ** طلع ﴾
(palm inflorescence
in spathe)

Talʿ طلع is the inflorescence of a palm tree as long as it is inside its spathe; sing. **talʿah** طلعة. It contains a large number of peduncles, each carrying many flowers. The enclosing sheath (spathe) becomes woody when dry.

Talʿ appears in four **ʿĀyas** in the Holy Qurʾān:

Out of the date palm and its sheaths (or spathes) (come) clusters of dates hanging low and near: and (then there are) gardens of grapes.

(Q: S. 6 al-'An'ām, 99). (الأنعام: ٩٩)

﴿وَمِنَ النَّخْلِ مِنْ طَلْعِهَا قِوَانٌ دَانِيَةٌ وَجَنَّاتٍ مِنْ أَعْنَابٍ﴾

And cornfields and date palms with spathes near breaking (with the weight of fruit)?

(Q: S. 26 al-Shu'arā', 148). (الشعراء: ١٤٨)

﴿وَزُرُوحٍ وَنَخْلٍ طَلْعُهَا هَضِيمٌ﴾

The shoots of its fruit-stalks are like the heads of devils.

(Q: S. 37, al-Ṣāffāt, 65). (الصفات: ٦٥)

﴿طَلْعُهَا كَأَنَّهُمْ رُءُوسُ الشَّيَاطِينِ﴾

And tall (and stately) palm trees, with shoots of fruit stalks, piled one over another.

(Q: S. 50, Qāf, 10). (ق: ١٠)

﴿وَالنَّخْلَ بَاسِقَاتٍ لَهَا طَلْعٌ نَضِيدٌ﴾

Ṭal' is edible. Ibn al-'A'rābī quotes al-Mufaḍḍal al-Ḍabbī as follows: Three items of plants cause no obesity if eaten: **jummār** (palm pith), **ṭal'** (palm inflorescence), and **kama'ah** (truffle). Botanists use the term androecium for **ṭal'**, to refer to the male organs in the plant, i.e. the organs which contain the pollen grains. For the purpose of fertilization, these grains are transmitted to the pistil, by man in the case of palm trees, by the insects, or wind, in others.

In the case of the palm tree, **ṭal'** (the inflorescence), whether male or female, is composed of a large number of peduncles overlapping with one another inside a **gharīd** (sheath or spathe). When the sheath opens, the peduncles with all their flowers come into view.

﴿ Adas عدس ﴾
(lentil)

‘Adas عدس is an annual herb with a delicate stem; its leaves are compound pinnate with thin stipules, and its terminal leaves carry tendrils at their ends. Its flowers are white, and its fruit is a small, broad pod with one or two seeds. Each seed contains two orange-coloured cotyledons.

Cultivation of lentil is common in countries of the Mediterranean basin, India, Pakistan, China, and South America. Asia, particularly Turkey, is among the most important producers of lentils. Lentil soup is consumed in many countries all over the world. The seeds contain 12.4% water, 25.1% protein, 0.7% fat, 29.7 carbohydrates, and some minerals. Lentil is an important source of protein. The thresh left after separating the seeds provides a valuable source of nutrition for animals. The Latin name for ‘adas (lentil) is *Lens culinaris* Medic. (= *L. esculenta* Moench). It belongs to the family Leguminosae, sub-family Papilionoideae.

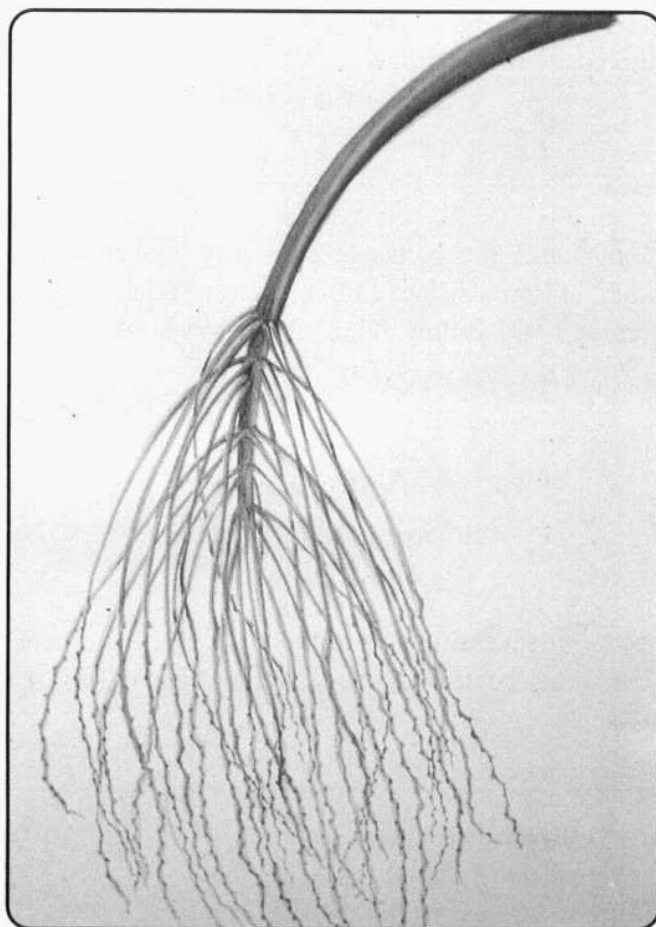
It is safe to state that lentil is among the earliest plants cultivated by man in ancient times. In all probability, it was first cultivated in southwest Asia, then, around 500 B.C., it became common in the Mediterranean basin and Ethiopia, and later on in India, China and East Asia.

‘Adas (lentil) appears only once in the Holy Qur’ān when the Israelites ask Moses (PBUH) to beseech His Lord to produce for them plants they like. As Allah the Most Sublime says:

And (remember) ye said: O Moses! We cannot endure one kind of food (always);
So beseech thy Lord for us to produce for us of what the earth groweth – its pot-herbs, and cucumbers, its garlic, lentils, and onions.

﴿ وَإِذْ قُلْتُمْ يَسْمُوْسَىٰ لَنْ نَّصْبِرَ عَلَىٰ طَعَامٍ وَاحِدٍ فَادْعُ لَنَا رَبَّنَا يُخْرِجْ لَنَا مِمَّا تُنْبِتُ الْأَرْضُ مِنْ بَقْلِهَا وَقِثَّائِهَا وَفُؤْمِهَا وَعَدَسِهَا وَبَصِلِهَا ﴾

(البقرة: ٦١) (Q: S. 2 al-Baqarah, 61).



Urjūn

﴿ عرجون ﴾ Urjūn

(date peduncle bearing stalk)

The **urjūn** عرجون of **nakhl** (palm tree) is the main stalk of the female or fruiting inflorescence. It carries numerous long peduncles, each of which bears many female flowers which later develop into fruits. The **urjūn** is yellow, flattered, broad, woody and curved. By contrast, the early Arabs call the peduncle of the male inflorescence **aṭal** عَطَل, **ayṭal** عَيْطَل or **aṭīl** عَطِيل.

Al-ʿAzharī says a **urjūn** is broad and yellow, to which Allah the Almighty likened the crescent. Allah the All-Perfect, All-Sublime says:

And the moon We have measured for it

﴿ وَالْقَمَرَ قَدَرْنَاهُ ﴾

mansions (to traverse) till it returns like
the old (and withered) lower part of a
date stalk.

مَنَازِلَ حَتَّىٰ عَادَ كَالْعُرْجُونِ الْقَدِيمِ ﴿٣٩﴾

(Q: S. 36 Yāsīn, 39). (يس: ٣٩)

According to Ibn Seeda, the points of similarity are their fineness and curved shape. In al-Kashshāf, al-Zamakhsharī (3/278) states: "When a **عرجون** *urjūn* becomes old, it turns fine, curved and yellow. Thus, the moon is likened to it for these three aspects".

﴿عصف Aṣf﴾

(storming, dead leaves,
chaff, husks)

عصف Aṣf appears in several places in the Holy Qurʾān, where it means "violent blowing of wind" in some contexts, and "stalks and leaves" in others. For example, Allah the Almighty says:

Also corn, with (its) leaves and stalks
for fodder, and sweet-smelling plants.

وَالْحَبُّ ذُو الْعَصْفِ وَالرَّيْحَانُ ﴿١٢﴾

(Q: S. 55 al-Raḥmān, 12) (الرحمن: ١٢)

He also says:

Then did He make them like an empty
field of (withered) stalks and straw.

﴿جَعَلَهُمْ كَعَصْفٍ مَّأْكُولٍ﴾

(Q: S. 105 al-Fil, 5). (الفيل: ٥)

Aṣf refers to the leaves on the stalk of a plant that has dried out and crumbled. For other lexicographers, it refers to leaves and all other inedible parts. Some say that it denotes **tibn** (hay, straw), others say it is the husks and chaff around the grain. But others define it as the leaves which unfold to expose the fruit.

Aṣf in al-Raḥmān **sūrah** has been interpreted as "the leaves and husks that cover the grains of a spike, and that which is not edible". In the **Āyah** from al-Fil

sūrah, "ka`aşfin ma`kūl كَعَصْف مَأْكُول" has been interpreted in two ways: First, "the Companions of the Elephant" have been made like leaves whose grains have been collected, thus left grain-less. In other words, like a plant whose grains have been eaten, and nothing has been left behind except chaff and straw. Second, He made them like fodder that has been eaten by animals.

﴿عنب Inab﴾
(grapes)

`Inab عنب (grapes) and `a`nāb اعناب (vines) appear eleven times in the Holy Qur`ān. Allah, the Most Sublime says:

And produce therein corn, and grapes
and nutritious plants.

﴿فَأَنْبَتْنَا فِيهَا حَبًّا وَعِنَبًا وَقَضْبًا﴾

(Q: S. 80 `Abasa, 27, 28). (عبس: ٢٧ ، ٢٨)

He also says:

And in the earth are tracts (diverse
though) neighbouring, and gardens of
vines.

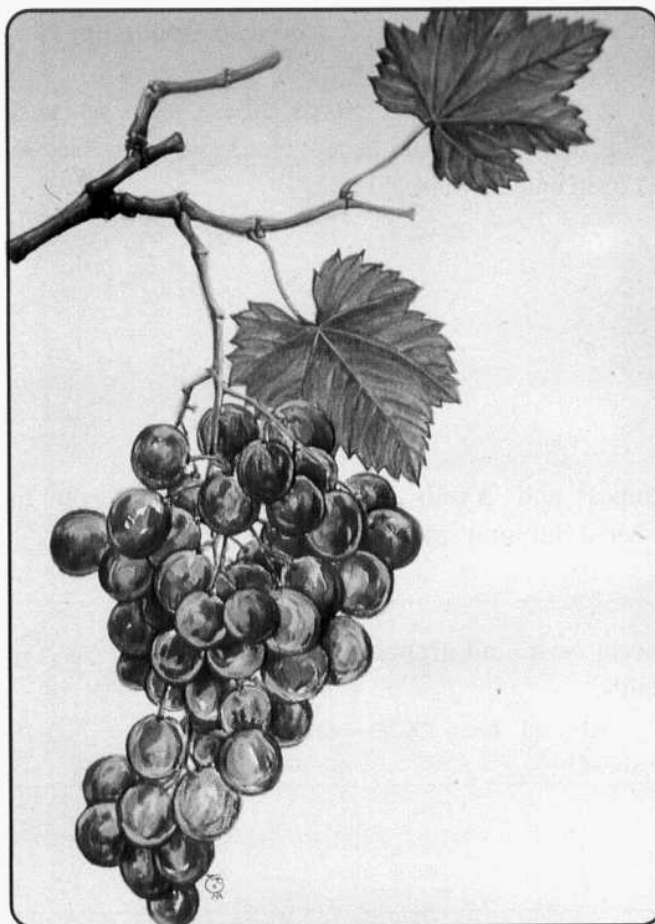
﴿وَفِي الْأَرْضِ قِطْعٌ مُتَجَاوِرَةٌ وَجَنَّاتٌ مِّنْ أَعْنَابٍ﴾

(Q: S. 13 al-Ra`d, 4). (الرعد: ٤)

(See also al-Baqarah: 266; al `An`ām: 99; al Naḥl: 11, 67; al-`Isrā': 91; al Kāhf: 32; al-Mu`minūn: 19; Yāsīn: 34; and al-Naba': 32).

Grape is a perennial, scandent liana, with tendrils that enable it to climb trellises. The plant is geographically widespread. It is deciduous. It has numerous strains and varieties, with various colours and tastes. Grapes are berry fruits. One of its strains, which is commonly known in Arabic as `inab banātī, is seedless. The Latin name for `inab (grape) is *Vitis vinifera* L. of the family Vitaceae.

Among its Arabic names are **karm**, **bustānī**, `arīshah, ḥabl, ḥablah. The fruit is



`Inab

called **`inab**. When it is still green and sour, it is called **ḥiṣrim** (unripe, sour grapes) while it is called **zabib** (sultana) when it is sun-dried.

﴿Ghuthā' غُثَاء﴾ (dead tree-leaves)

Ghuthā' غُثَاء refers to the dead, tree-leaves which you see floating in the foam when a torrent swells and flows violently.

Ghuthā' appears twice in the Holy Qur'ān. Allah the Most Sublime, says:

Then the blast overtook them with justice, and We made them as rubbish of dead leaves.

(المؤمنون: ٤١). (Q: S. 23 al-Mu'minūn, 41).

﴿فَأَخَذَتْهُمُ الصَّيْحَةُ بِالْحَقِّ فَجَعَلْنَاهُمُ غُرَابًا﴾

He also says:

And who bringeth out the (green and luscious) pasture, and then doth make it (but) swarthy stubble.

(الأعلى: ٤، ٥). (Q: S. 87 al-A'lā, 4, 5).

﴿وَالَّذِي أَخْرَجَ الْمَرْعَىٰ فَجَعَلَهُ غُثَاءً أَحْوَىٰ﴾

Faja`alnāhum ghuthā'a فجعلناهم غثاء (We turned them into dead leaves) means that following their punishment by Allah the Most Exalted, they have become like dead leaves). According to al-Ṭabarī (18/17) the point of similarity is their uselessness, but al-Zamakhsharī is of the opinion that the point of similarity is the extent of their devastation. As for **faja`alahu ghuthā'a** فجعله غثاء, the implication is that He made it so dry that it becomes husks and chaff like the dead leaves one sees floating in a torrent.

﴿غلب Ghulb﴾ (dense and thick)

Ghulb غلب appears once in the Holy Qur'ān. Allah the Most Sublime says:

And enclosed gardens, dense with lofty trees.

(عبس: ٣٠). (Q: S. 80 `Abasa, 30).

﴿وَحَدَائِقَ غُلْبًا﴾

If someone says **hadīqatun ghalbā'** he means a grove or garden with dense trees growing close together. A tree is described as **ghalbā'** if it is thick. In al-Lisān,

‘ighlawlaba al-nabt aw al-`ushb means the plant or herb has become fully grown and dense.

﴿ فَاكِهَة فَاكِهَة ﴾
(fruit, yield, produce,
enjoyment)

In its most common sense **fākihah** فَاكِهَة (fruit), appears eleven times in the Holy Qur’ān. The plural form, **fawākih** فَوَاكِه , appears three times. All mentions of the singular and plural forms are in connection with the delight, comfort and joy of the believers in Paradise. Allah the Most Sublime says:

Verily the Companions of the Garden shall that day have joy in all that they do;
They and their associates will be in groves of (cool) shade, reclining on thrones (of dignity);
(Every) fruit (enjoyment) will be there for them; they shall have whatever they call for.

﴿ إِنَّ أَصْحَابَ الْجَنَّةِ الْيَوْمَ فِي شُغْلٍ فَاكِهُونَ ﴾ .

﴿ هُمْ وَأَزْوَاجُهُمْ فِي ظِلِّلٍ عَلَى الْأَرَائِكِ مُتَكِئُونَ ﴾ .

﴿ لَهُمْ فِيهَا فَاكِهَةٌ وَلَهُمْ مَا يَدْعُونَ ﴾ .

(يس: ٥٥ - ٥٧). (Q: S. 36, Yāsin, 55-57).

Allah the All-Perfect also says:

As to the righteous, they shall be amidst (cool) shades and springs (of water).
And (they shall have) fruits – all they desire.

﴿ إِنَّ الْمُتَّقِينَ فِي ظِلِّلٍ وَعُيُونٍ وَفُورٍ وَمَا يَشْتَمُونَ ﴾ .

(المرسلات: ٤١ ، ٤٢). (Q: S. 17, al-Mursalāt, 41,42).

All mention of **fākihah** and **fawākih** is in **sūras** that were revealed to Prophet Mohammad (PBBUH) in Mecca, with the exception of three **Āyas** of al-Raḥmān **sūrah**, which was revealed in Medina.

There are two mentions of **fākihah** in the context of enumerating the blessings Allah the Most Exalted, graced His creation on earth with. Allah the Most Sublime says:

It is He who has spread out the earth
for (his) creatures.

Therein is fruit and date palms,
producing spathes (enclosing dates).

(الرحمن: ١٠، ١١) (Q: S. 55, al-Raḥmān, 10, 11).

﴿وَالْأَرْضَ وَضَعَهَا لِلْأَنْبَاءِ فِيهَا فَكِهَةٌ وَالنَّخْلُ
ذَاتُ الْأَكْمَامِ﴾

He also says:

And fruits and fodder.

(عبس: ٣١) (Q: S. 80, 'Abasa, 31).

﴿وَفِيهَا وَأَبَا﴾

Fākihah is the edible part of a plant's yield. It follows that not all yield is fruit, but all fruit, are yield. (cf. **thamar**). By association, it may be used to imply something which man enjoys, as it is in the following context, where Allah the Most Sublime says:

Enjoying the bliss which their Lord
hath bestowed on them,...

(الطور: ١٨) (Q: S. 30, al-Ṭūr, 18).

﴿فَكِيهِينَ بِمَا أَنْهَم رَبُّهُمْ﴾

In al-Lisān, **fākih** فاكه means one who is joyous, as implied in the 'Āyah:

That day the companions of Paradise
have joy in all that they do.

(يس: ٥٥) (Q: S. 36, Yāsīn, 55).

﴿إِنَّ أَصْحَابَ الْجَنَّةِ الْيَوْمَ فِي شُغْلٍ فَكِهُونَ﴾

﴿Far` فرع﴾

(branch, topmost,
high rank)

In the Holy Qur`ān, **far`** فرع (top, topmost) appears once in the following `Āyah:

Like a goodly tree, whose root is firmly fixed, and its branches (reach) to the Heavens.

﴿كَشَجَرَةٍ طَيِّبَةٍ أَصْلُهَا ثَابِتٌ وَفُرُوعُهَا فِي السَّمَاءِ﴾

(Q: S. 14, Ibrāhīm, 24). (ابراهيم: ٢٤)

The **far`** of anything is its topmost part. If you say, **huwa far`u qawmihi** هو فرع قومه, you mean he is most honoured and celebrated among his people. If one says, **fara`tu qawmī** فرعت قومي, he means that he surpassed them in both rank and looks. When you say, **tafarra`at `aghṣānu al-shajarah**, you mean that the boughs of the tree have grown numerous branches.

﴿Fūm فوم﴾

(wheat or garlic)

Fūm فوم applies to land plants, as attested by Allah the Most Sublime's words:

So beseech thy Lord for us to produce for us what the earth groweth – its pot-herbs, and cucumbers, its garlic, lentils, and onions.

﴿لَنْ نَقْدِرَ عَلَى طَعَامٍ وَجِدْ فَادْعُ لَنَا رَبَّنَا يُخْرِجْ لَنَا مِمَّا تُنْثِي الْأَرْضُ مِنْ بَقْلِهَا وَقِثَّائِهَا وَفُومِهَا وَعَدَسِهَا وَبَصِلِهَا﴾

(Q: S. 2, al-Baqarah, 61). (البقرة: ٦١)

No other mention of **fūm** فوم is made elsewhere in the Holy Qur`ān.

Commentators on the Holy Qur`ān and linguists are in disagreement with regard to the meaning of **fūm**. The majority are of the opinion that it denotes the wheat and

grains from which people make their bread. They base their argument on the view that people would never ask for varieties of plants, excluding **burr** بر (wheat) – the basic nutritional ingredient. Other commentators identify **fūm** as **thawm** ثوم (garlic) on the grounds that it collocates with **baṣal** بصل (onion), and that the word has undergone phonological substitution of (th) ث into (f) ف on analogy of the words **jadath** and **jadaf** جدث وجدف which are used to denote **qabr** قبر (grave). There is a third interpretation which is rather unfamiliar; **fūm** is identified as chickpeas (al-Qurṭubī: 1/426).

Wheat is a crop that has been known to man since time immemorial. It is one of the most important crops all over the world. In temperate regions, it is the most important yield crop. In fact, the international production of wheat exceeds that of any other food crop.

Wheat belongs to the genus *Triticum* of the family Gramineae. It is an annual, herbaceous plant, with an upright stem. Its height may range between 60 and 120 cms. These stems carry spikes, each of which comprises 15-20 spikelets, each spikelet carries 1-6 flowers. Some of these flowers produce grains.

Man has known wheat for a long time. In consequence, its varieties and kinds have diversified. Man has contributed to the generation of new strains via hybridization and selection species and varieties of wheat vary with respect to the shape of the plant, spike, and grain.

The most commonly used species of wheat are the following: First, hard wheat, i.e. *Triticum durum*, which produces first-rate flour with a high percentage of gluten that gives it the elasticity necessary for making pasta, semolina, and pastry. Second, common wheat, i.e. *Triticum aestivum*, whose flour is not as fine as that of hard wheat; thus it is used for making bread.

Wheat contains about 70% carbohydrates, 8-16% protein, 2% fat, and some vitamins. Proteins and vitamins are concentrated in the wheat bran, and fat in the embryo.

As for garlic, it has been known since time immemorial. It was known to the Ancient Egyptians as far back as 3200 B.C. It has also been mentioned in the Tawrah: "We long for the fish we used to eat in Egypt for free, and to the cucumbers, water-melon, leek, onion, and garlic. Now we are off our food with nothing before our eyes except this **manna**". The Talmud also mentions garlic as a food seasoning.

The Latin name for **thawm** ثوم is *Allium sativum* L. It belongs to the family Liliaceae. It is a perennial plant which most probably originated in the Middle East. It

grows long, thin, flattened, leaves and a peduncle which may reach a height of 60 cms. The garlic bulb consists of cloves, each of which is surrounded by a dry, thin, white or pink cover. The garlic leaves and cloves contain a volatile matter with pungent taste and smell, known as alliin. This organic, sulphuric matter gives a malodorous smell which circulates with the blood to the lungs and is emitted with one's exhalation, thus bothering the people nearby. Prophet Mohammad (PBBUH) ordered the one who ate garlic or onion to keep away from group prayers and the mosque. (cf. **baṣal**).

Thawm ثوم (garlic) is used as a flavouring ingredient in making salad, sausage and pastrami. Garlic is medically beneficial as antiseptic and disinfectant. It is claimed that it is a digestive, laxative and diuretic agent.

﴿قثاء Qiththā'﴾

(squirting cucumber)

Qiththā' قثاء is a prostrate plant of the family Cucurbitaceae with many branches, broad leaves, and unisexual yellow flowers. Female flowers yield the soft, fleshy **qiththā'** fruit which is a berry. The technical term for **qiththā'** is *Cucumis melo* L. subsp. *pubescens*. Cucurbitaceae also includes such plants as water-melon, cucumber, honey-dew melon, and loofah gourd. Such plants are widely cultivated in the Middle East.

In the Holy Qur'ān, **qiththā'** appears only once in the context of relating what the Israelites asked Prophet Moses (PBUH) to beseech His Lord to produce for them:

So beseech thy Lord for us to produce for us of what the earth groweth, its pot-herbs, and cucumbers, its garlic, lentils, and onions.

(Q: S. 2, al-Baqarah, 61).

﴿لَنْ نَصْبِرَ عَلَىٰ طَعَامٍ وَاجِدٍ فَادْعُ لَنَا رَبَّكَ يُخْرِجْ لَنَا
مِمَّا تُنْبِتُ الْأَرْضُ مِنْ بَقْلِهَا وَقِثَّائِهَا وَفُؤَيْهَا
وَعَدَسِهَا وَبَصِلِهَا ۚ﴾

(البقرة: ٦١)



Qiththā'

The Israelites asked Prophet Moses (PBUH) for these varieties of plants, for these were what they were used to in Egypt.

﴿قَضَبْ Qaḍb﴾ (Cadaba, alfalfa)

In the Holy Qur'ān, **qadḍ** قَضَبْ is mentioned among the foods which the earth, by Allah's Grace, grows:

Then let man look at his food, (and how We provide it): for that We pour forth water in abundance, and We split the earth in fragments, and produce

﴿فَلْيَنْظُرِ الْإِنْسَانُ إِلَى طَعَامِهِ﴾ أَنَا صَبَبْنَا الْمَاءَ صَبًّا
ثُمَّ شَقَقْنَا الْأَرْضَ شَقًّا فَأَنْبَتْنَا

therein corn, and grapes and nutritious plants.

فِيهَا حَبَّاءٌ وَعِنَبٌ وَقَضْبٌ .

(عيسى: ٢٤ - ٢٨). (Q: S. 80, `Abasa, 24-28).

In the books of commentary on the Holy Qur`ān, **qaḍb** has been given the following interpretations: 1) **`alaf** (fodder); 2) **faṣfaṣah**, i.e. fresh **gatt** (alfalfa) ; 3) any kind of **muqtaḍab** (cut off) edible plant, which implies that **qaḍb** is not the name for a specific plant; rather it denotes any plant that is recurrently reaped to provide food for man or fodder for animals.

Qaḍb is also used to denote two species of the genus *Cadaba*: *Cadaba rotundifolia* Forssk. (Ahmed Migahid 1978); and *Cadaba farinosa* Forssk. (Vivi Tackholm 1974). The first species is a large tree with long branches, and smooth, bluish green, more or less rounded leathery leaves, 2.5-5cm. wide. The tree grows in Southern Hijaz, southwest Arabia, and Central and North Sudan. It is rarely found in Mount `Elba. *Cadaba farinosa*, on the other hand, is a bushy shrub, with erratic growth of dense branches. It may grow upright or climb and spread on other plants. Its leaves are oblong, 2.5cm. long, and 1.2cm. wide, with minute hairs on their surface. It grows in North and Central Sudan, the south of the Egyptian Eastern Desert, the coast of the Red Sea, and Mount `Elba.

It is stated in the Flora of Arabia (Blatter 1919) that the plant known to botanists as *Cadaba rotundifolia* is known in Yemen as **qaḍb**. This view is after the Swedish botanist, Forsskol, who visited Yemen in 1762 where he collected samples of its flora and recorded their local Arab names. The Latinate name which this botanist gave to the plant is derived from the Arabic one (see el-Batanouny 1985). The plant grows in the plains and valleys of Tihama.

Abū-Ḥanīfa (al-Lisān: **qaḍb**) describes **qaḍb** as follows: "It is a plant of the plains which grows in shrub assemblies. It resembles the peartree, and so do its leaves. It is grazed by camels. When a camel has its fill of it, it deserts the plant for a while, because it makes the camel's teeth dull (by its acidity), its voice hoarse, and causes it to cough". Al-Naḍr Ibn Shumayl identifies **qaḍb** as a plant from which bows are made.

﴿Qitmīr قطمير﴾

Qitmīr قطمير appears once in the Holy Qurʾān. Allah the Most Sublime says:

And those whom ye invoke besides Him
have not the least power).

(Q: S. 35, Fāṭir, 13). (فاطر: ١٣)

﴿وَالَّذِينَ تَدْعُونَ مِنْ دُونِهِ مَا يَمْلِكُونَ مِنْ
قِطْمِيرٍ﴾

Most commentators on the Holy Qurʾān define **qitmīr** as the wrapper, skin, or thin membrane separating the stone from the palm-date. Qatādah and al-Ḍaḥḥāk identify **qitmīr** as the head of a palm-date, meaning the top where it hangs on the stalk. Ibn ʿAbbās and Qatādah are of the opinion that it denotes the slit of the date-stone. This interpretation is favoured by al-Mubarrad. A fourth view, which has been related on weak authority by al-Jawharī, is that **qitmīr** is the small depression on the back of the date-stone from which the palm seedling comes out (It is noteworthy that it is the part shielding the embryo). Be it as it may, **qitmīr** is often used metaphorically for any trivial object, as evidenced by the above ʿĀyah where it is stated that those whom the unbelievers invoke besides Allah are trivial and powerless.

﴿Qinwān قنوان﴾

Qinw قنو is ʿidhq i.e. the fruiting inflorescence with all the ripe dates it carries. In other words, it denotes the peduncles with their fresh, ripe fruits. The plural can be either **qinwān** قنوان or ʿaqnā ʿاقناء .

The ʿidhq of a palm tree is similar to a bunch of grapes: it is a cluster of fruits which were originally an inflorescence with female flowers, whose ovules were fertilized and in consequence produced a fruit each. ʿidhq may carry the fruits through all their phases of maturity, whether **bosr** (unripe date), **balaḥ** (date), **ruṭab** (ripe date), or **tamr** (sundried date). However, it is termed specifically ʿidhq when it carries clusters of ripe dates.

Qinwān قنوان (pl. of qinw) appears in the words of Allah the Most Sublime:

Out of the date palm and its sheath (or spathes) (come) clusters of dates hanging low and near and (then there are) gardens of grapes.

﴿ تُخْرِجُ مِنْهُ حَبًا مُتَرَاكِبًا وَمِنْ النَّخْلِ مِنْ طَلْعِهَا قِنْوَانٌ دَانِيَةٌ وَجَنَّاتٍ مِنْ أَعْنَابٍ ﴾

(Q: S. 6, al-ʿAnʿām, 99). (الأنعام: ٩٩)

The implication of **qinwānun dāniyah** قنوان دانية (hanging low and near) is that the clusters of dates are within their reach.

﴿ Kāfūr كافور ﴾

(camphor, spathe, sheath, vessel)

Kāfūr كافور appears once in the Holy Qurʾān. Allah the Most Sublime says:

As to the righteous, they shall drink of a cup (of wine) mixed with kāfūr.

﴿ إِنَّ الْأَبْرَارَ يَشْرَبُونَ مِنْ كَأْسٍ كَانَ مِزَاجُهَا كَافُورًا ﴾

(Q: S. 16, al-Insān, 5). (الإنسان: ٥)

There are several meanings of **kāfūr** in Arabic: the palm spathe, or the vessel or cistern of any plant; a mixture of scented substances; a fountainhead of a drink in Paradise, as understood from the interpretation of the above ʿĀyah; or a fragrant plant. It may also mean camphor in the sense used in **Ḥadīth** (Prophetic Tradition), which is the meaning we are inclined to adopt here.

On the authority of ʿUmm ʿAṭiyyah al-Anṣāriyyah, may Allah be pleased with her, Prophet Mohammad (PBBUH) came in when his daughter passed away, and said: «Wash her with water and **sidr** three, five times or more, as you see fit, then end up with camphor». (Related by al-Bukhārī and other **Ḥadīth** relaters).

We tend to believe that **kāfūr** appearing in the above ʿĀyah is that which is mentioned in the **Ḥadīth**. It is an important ethereal, aromatic oil, whose scent wafts very slowly and gently through the air. It exist in the solid state at room temperature and sublimates very slowly. Camphor, i.e. camphor gum, is semi-transparent white gran-

ules, with pungent taste and strong aromatic smell.

Camphor is used as an ingredient in manufacturing certain chemicals and perfumes. Medically, it is an official substance with numerous internal and external uses: it contains saturated ketone, and can be used as a stimulant with antispasmodic properties.

Camphor gum is distilled from the camphor tree whose Latin name is *Cinnanomum camphora*. of the family Lauraceae, which includes laurel that is usually associated with laurel wreaths as a sign of victory, and cinnamon. The camphor tree is evergreen, about 12 metres tall, and has a huge crown with dense, dark, lustrous, oblong - ovate leaves, whose length ranges from 5 to 13 cms. Camphor is extracted from the wood and leaves of the camphor tree by distillation. Nowadays, it is manufactured artificially from certain chemicals. The original habitat of the camphor tree is in Japan and China. But it has been introduced into several tropical regions for decorative purposes.

It is noteworthy that *Cinnanomum camphora* is different from the tree known in Egypt as *kāfūr* كافور , and in Kuwait as *kinā* كينا. The latter is a very tall tree whose original habitat is in Australia; it is cultivated in order to give shade, or for decorative purposes, or as a source of timber. It has long, narrow, lance shaped leaves. The Latin name for this tree is *Eucalyptus* spp. of the family Myrtaceae, which encompasses such plants as myrtle (*Myrtus*), guava (*Psidium guayava*), and clove (*Syzygium*).

﴿Kifāt كفات﴾

(place for the living,
or the dead)

Kifāt كفات is the place where life is given or taken. The phrase **kifāt al-ʿaḥyāʾ** (Ar.) كفات الأحياء denotes dwelling places for the living. In contrast, **kifātu al-amwāt** كفات الأموات denotes cemeteries.

In the Holy Qurʾān, **kifāt كفات** appears once in the Mursalāt sūrah:

Have We not made the earth (as a
place) to draw together the living and
the dead.

﴿أَلَمْ نَجْعَلِ الْأَرْضَ كِفَاتًا أَحْيَاءَ وَأَمْوَاتًا﴾

(المرسلات: ٢٥ ، ٢٦). (Q: S. 77, al-Mursalāt, 25, 26).

According to most commentators on the Holy Qurʾān, **kifāt** كِفَات is one of the terms used to describe the earth. Thus, the earth is qualified as **kifāt** for the living and the dead, implying that its surface has been made for the living, and its interior for the dead.

Al-Qurtubī (19/161, 162) quotes al-ʿAkhfash, ʿAbū-ʿUbaida, and Mujāhid in one of his two interpretations as follows: "الْحَيَاءُ وَالْمَوَاتُ (the living and the dead) refer to the earth, i.e. the earth is divided into living earth which allows seed germination, and dead which does not". (cf. ʿarḍ اَرْض).

﴿لِقَاحُ لِقَاحِ﴾ (pollinated, impregnated)

Liqaḥ لِقَاح is **māʾ al-faḥl** ماء الفحل (male generative fluid, semen), or that which trees and plants are pollinated with, i.e. male cells that unite with female ones in the process of fertilization, thus producing an embryo.

The Arabs have been acquainted with palm-tree pollination for a long time. In the process, a peduncle of male flowers is inserted into a female inflorescence. In this way, the pollen grains are conveyed from the anther to the stigma. Some plants are pollinated by the agency of insects. An insect may visit a flower to suck its nectar, and inadvertently carry pollen grains from that flower, and convey them to another flower where the ovule is pollinated and fertilized. Other flowers, such as those of wheat, barley and maize are pollinated by wind.

Date-palm pollination has to be performed according to certain rules and methods, otherwise, the fruit will be **ṣayṣāʾ**, i.e. tasteless, stoneless dates.

Lawāqih لَوَاقِح appears in Allah the All-Perfect's words:

And We send the fecundating winds,
then cause the rain to descend from the
sky, therewith providing you with
water (in abundance).

﴿وَأَرْسَلْنَا الرِّيحَ لَوَاقِحَ فَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً
فَأَسْقَيْنَاكُمُوهُ﴾

(Q: S. 15, al-Hijr, 22). (الحجر: ٢٢)

In the above ʿĀyah, **lawāqih** لَوَاقِح has a different connotation. It is true that the wind may function as conveyer of pollen from one flower to another. But, in this

ʿĀyah **lawāqih** لواقح is immediately followed by causing the rain to fall, which implies that we are dealing with rainfall, not pollination. For scientists, this implies that the wind carries nuclei of condensation which impregnate the clouds and cause the rain to fall. This process can be performed artificially: planes spray the clouds with certain chemicals, whose molecules function as nuclei of condensation, causing artificial rain to fall.

The early Arabs said: **al-lawāqihu mina al-riyāh** اللواقح من الرياح (impregnating winds) are those which carry the dew and inject it into the cloud. Once the dew is well penetrated into the cloud it changes it into rain. **Lawāqih** لواقح has also been interpreted as **حوامل** (carriers, bearers), sing. **lāqih** لاقح. **Rihun lāqih** ريح لاقح (lāqih wind) is **rihun dhātu liqāh** ريح ذات لقاح (wind with liqāh), i.e. wind carrying nuclei of condensation that help change the molecules of water-vapour into rain.

﴿لينة Līnah﴾ (palm-tree)

Allah, May He be All-Glorified, All-Exalted, says:

Whether ye cut down (O Ye Muslims!)
the tender palm trees, or ye left them
standing on their roots, it was by leave
of Allah.

﴿مَا قَطَعْتُمْ مِنْ لَيْنَةٍ أَوْ تَرَكْتُمُوهَا قَائِمَةً عَلَى
أَصُولِهَا فَإِنَّ اللَّهَ﴾

(الحشر: ٥) (Q: S. 59, al-Hashr, 5).

This is the only time where **līnah** لينة appears in the Holy Qurʾān. The **sūrah** of al-Hashr (The Gathering) relates the banishment of the Jewish Banī al-Naḍir. Prophet Mohammad (PBBUH) besieged them after they had broken their promise not to back the Qurayshites against him on the Day of the battle of ʿUḥud. During the siege, he ordered that their palm trees be cut down and burnt.

Commentators on the Holy Qurʾān are in disagreement in regard to what **līnah** لينة means, and what kind of palm tree it exactly denotes in this very ʿĀyah. Their interpretations are in excess of ten. They include: all kinds of **nakhl** (palm trees), palm trees of the best strain and quality, and palm tiller (Qurṭubī: 18/6 – 10; al-Durr al-Manthūr: 6/190 – 192). Other commentators are of the opinion that all trees are **līnah** لينة, for all (living) trees are soft with life.

﴿Mutarākib متراكب﴾

(overlapping, heaped up)

If you say **tarākaba al-shayʿ** تراكب الشيء , you mean that s.th. has overlapped with another, or it has accumulated. **Al-mutarākib** المتراكب is **al-mutarāṣṣ** المتراص , i.e. s.th. that is compact, or heaped up.

Mutarākib متراكب appears once in the Holy Qurʿān:

From some We produce green (crops),
out of which We produce grain, heaped
up (at harvest).

﴿فَأَخْرَجْنَا مِنْهُ خَضِرًا نُخْرِجُ مِنْهُ حَبًّا
مُتْرَاقِبًا﴾

(Q: S. 6, al-ʿAnʿām, 99). (الأنعام: ٩٩)

Grains overlap with one another in the spike.

﴿Makhḍūd مخضود﴾

(with the thorns of
s.th. removed)

If you say **khaḍadtū al-shajar** خضدت الشجر , you mean you have removed the thorns of the tree **Khaḍīd** and **makhḍūd** مخضود are passive participles of the vb. **khaḍad** خَضَدَ **khaḍḍ** خَضَدَ is removing the thorns from the plant. **Sidrun makhḍūd** سدر مخضود means lotus trees whose thorns have been removed, i.e. thornless lotus trees.

Sidr سدر belongs to the genus **Zizyphus** which includes several fruit-bearing species. The shape, size and taste of the fruit vary according to the species. One species produces **nabq** نَبَق (see **sidr**). **Sidr** may grow naturally in the form of a tree with thorny stipules. The species also includes a thornless variety which bears larger fruits. Another species of **sidr** is cultivated in desert regions and produces **konār** كُنَّار, with oblong sweet fruits, sometimes called the apple of the desert. It is grafted on thorny varieties.

In their verse and prose, the early Arabs mention **al-sidr al-ḍāl** السدر الضال (wild shrubs with thorns and small fruit) and **al-sidr al-ʿibrī** السدر العبري (shrubs that grow close to rivers and springs, with few harmless, soft thorns). No doubt, **al-sidr al-makhḍūd** السدر المخضود is the best variety because it is thornless, and yields large sweet fruit.

Makhḍūd مخضود appears once in the Holy Qurʾān. Allah the Most Sublime says:

The companions of the right hand,
what will be the companions of the
right hand? (they will be) among
Lote-trees without thorns.

﴿وَأَصْحَابُ الْيَمِينِ مَا أَصْحَابُ الْيَمِينِ فِي سِدْرٍ مَخْضُودٍ﴾

(Q: S. 56, al-Wāqīʿah, 27,28). (الواقعة: ٢٧ ، ٢٨)

Al-Durr al-Manthūr (6/156) quotes al-Hākim and al-Bayhaqī in al-Baʿth who relate on the authority of Abū-Umāmah that: The companions of the Messenger of Allah (PBBUH) used to say "Allah always makes us benefit from the bedouins and the issues they raise. One day, a bedouin came along and said: 'O, Messenger of Allah, there is mention of a harmful shrub in the Holy Qurʾān. I never thought that there would be a harmful tree in Paradise'. The Messenger of Allah (PBBUH) replied: Does Allah not say **fi sidrin makhḍūd** في سدر مخضود , i.e. lotus trees whose thorns have been removed, and each thorn has been replaced by a fruit? It bears fruit in seventy-two different varieties".

This is probably what underlies the interpretation of **sidrin makhḍūd** as a **sidr** tree overladen with fruit. Along these lines, Ibn ʿAbbās interprets **khaḍḍohu** as its overload of fruit.

﴿Mudhāmmatān مدهامتان﴾

(Dark-green- dual number)

Al-Dahmah الدهمة is darkness, blackness. If someone says **ʿidhamma al-shayʿ** الروضة ادهم الشيء (s.th. has become black). If you say **al-rawḍatu al-mudhāmmah** المدهامة, you mean the dark-green meadow implying that it is so green that it almost looks black. The early Arabs used to describe any green land as **ʿaswad** اسود (black). The villages of Iraq were called **sawād** because they were all green. In consequence, **ḥadiqatun mudhāmmah** denotes a green garden shading into black for richness of soil and proper irrigation

In the Holy Qurʾān, **Mudhāmmatān مدهامتان** appears once in the context of describing the reward of those who fear their Lord. Allah the All-Perfect says that for those there will be two groves:

And besides these two, there are two other gardens; then which of the favours of your Lord will ye deny? Dark-green in colour (from plentiful watering).

﴿وَمِنْ دُونِهِمَا جَنَّتَانِ فَأَيُّ آلَاءِ رَبِّكُمَا تُكَذِّبَانِ
مُدَّاهَانِ﴾

(الرحمن: ٦٢ - ٦٤). (Q: S. 55, al-Rahmān, 62-64).

﴿Muṣfarr مصفر﴾ (yellow, yellowish)

Muṣfarr مصفر means has become yellow, which occurs when the plant withers and dries up. This state indicates that the plant has lost both its chlorophyll and vitality.

In the Holy Qur'ān, **muṣfarr مصفر** appears twice in the following 'Āyas:

..., then it withers; thou will see it grow yellow; then He makes it dry up and crumble away.

﴿ثُمَّ يَهْبِجُ فَتَرَاهُ مُصْفَرًّا ثُمَّ يَجْعَلُهُ حُطَمًا﴾

(الزمر: ٢١). (Q: S. 39, al-Zumar, 21).

"Soon it withers; thou will see it grow yellow; then it becomes dry and crumbles away.

﴿ثُمَّ يَهْبِجُ فَتَرَاهُ مُصْفَرًّا ثُمَّ يَكُونُ حُطَمًا﴾

(الحديد: ٢٠). (Q: S. 57, al-Hadīd, 20).

﴿Ma`rūshāt معروشات﴾ (on, with trellises)

The following 'Āyah appears in the Holy Revelation:

It is He who produceth gardens, with trellises and without, and dates, and plants with produce of all kinds.

﴿وَهُوَ الَّذِي أَنشَأَ جَنَّاتٍ مَّعْرُوشَاتٍ وَغَيْرَ مَعْرُوشَاتٍ
وَالنَّخْلَ وَالزَّرْعَ مُخْتَلِفًا أُكُلُهُ﴾

(الأنعام: ١٤١). (Q: S. 6, al-An`ām, 141).

1– **Al-Taranjīn**: a honey-like, solidifying dew that falls from the sky. Al-Qurṭubī says that most commentators hold this view. In al-Durr al-Manthūr, al-Saddī is quoted as saying that it fell on the **taranjīn** tree;

2– Sweet gum or sweet drink;

3– Honey.

It is related that it used to fall, like snow, from dawn to sunrise. Each Israelite, then, gathered his own daily supply.

Modern botanists have attempted to identify **manṣa** المن which was mentioned in the Holy Qurʾān as well as in the Tawrah and the Bible. Some of them believe that it is a kind of lichen - a plant consisting of an alga and a fungus growing in close, symbiotic association. Few of them have gone as far as identifying the genus of manna as *Lecanora*. Nevertheless, the genus *Lecanora* is not available in Sinai. Others believe that it belongs to the genus *Collema* – a lichen which grows gelatinous at night, and hardens during the day. However, there is nothing to support this view.

Other researchers are of the opinion that a species of small insects, which feed on tamarisk, secrete some kind of sweet nectar that drops on the ground when it gets gummy. It is collected by bedouins, and used in lieu of sugar and honey. Some botanists reject this interpretation on the grounds that the activities of these insects are seasonal, and the limited number of tamarisk in Sinai, which would not suffice the needs of the great number of the Israelites. Another group of botanists suggest that those insects feed on tamarisk, and additionally on **al-ʿāqūl** العاقول (*Alhagi maurorum*), **al-shaʿrān** الشعرا (*Anabasis setifera*), and **al-rimth** الرمث , *Haloxylon salicornicum* which is common in southern Sinai.

﴿Munqa`ir منقعر﴾ (uprooted, torn up)

Munqa`ir منقعر means torn up by the roots. If s.o. says **qa`artu al-nakhlah**, he means he uprooted the palm-tree.

In the context of the story of ʿĀd (the people of Prophet Hūd PBUH) Allah the All-Perfect describes how they were punished:

For We sent against them a furious wind, on a day of violent disaster, plucking out men as if they were roots of palm-trees, torn up (from the ground).

(Q: S. 54, al-Qamar, 19, 20). (القم: ١٩، ٢٠)

﴿إِنَّا أَرْسَلْنَا عَلَيْهِمْ رِيحًا صَرْصَرًا فِي يَوْمٍ نَحْسٍ مُّسْتَمِرٍّ يَنْزِعُ النَّاسَ كَأَنَّهُمْ أَعْجَازُ نَخْلٍ مُّنْقَعِرٍ﴾

In other words, they have become like stumps of palm trees that have been torn up by the roots.

‘A`jāzu al-nakhl اعجاز النخل means the base on which the palm tree trunk stands, and from which the fibrous roots grow (cf. ‘A`jāz). Munqa`irah منقعة and khāwiyah خاوية (hollow) have similar implications in the sense that an uprooted palm tree develops a hollow base. This can be evidenced by the words of Allah the Most Exalted, Most Glorious, in the story of the `Ad people:

As if they had been bases of hollow palm-trees tumbled down!

(Q: S. 69, al-Hāqqah, 7). (الحاقة: ٧)

﴿كَأَنَّهُمْ أَعْجَازُ نَخْلٍ خَاوِيَةٍ﴾

Tearing plants up by the roots is used figuratively to connote total devastation of dwelling places, inclusive of their dwellers.

﴿نبت Nabāt , نبات Nabt﴾ (plant)

Nabāt نبات (plant) has been defined as the living creation which cannot leave its planting place, and survives by means of roots which strike in soil or water. This is a defective definition because it leaves out thousands of species which belong to the plant kingdom that have no roots. In addition, it ignores such plant life that can move through wind, water, or other agencies. It has also been defined as the vegetation which the earth grows. If s.o. says ‘Anbatat al-‘ard انبتت الارض, he means the earth (soil) has yielded. If you say nabt نبت, you mean anything that the earth yields. If s.o. says nabata al-baqlu, or ‘anbata nabtan wa inbātan وانباتا نبتا وانباتا he means the pot-herb has germinated and emerged from the soil.

Nabt نبت and its derivatives appear in 26 **Āyas** of the Holy Qurʾān. Excepting four of them, they all means s.th. to do with the concept of plants as commonly understood. In the four **Āyas**, creating and upbringing are metaphorically likened to germination and issuance from the earth. For instance, Allah the Almighty, says:

And God has produced you from the earth growing (gradually).

(Q: S. 71, Nūh, 17).

(نوح: ١٧)

﴿وَاللَّهُ أَنْبَتَكُمْ مِنَ الْأَرْضِ نَبَاتًا﴾

He also speaks of Maryam (PBUH) as follows:

He made her grow in purity and beauty.

(Q: S. 3, Āl-ʿImrān, 37).

(آل عمران: ٣٧)

﴿وَأَنْبَتَهَا نَبَاتًا حَسَنًا﴾

In order to realize how incomplete any restrictive definition of **nabāt** نبات is, consider the following Holy **Āyah**:

It is He who sendeth down rain from the skies; with it We produce plants of all kinds: from some We produce green (crops), out of which We produce grain, heaped up (at harvest); out of the date-palm and its sheaths (or spathes) (come) clusters of dates hanging low and near: and (then there are) gardens of grapes, and olives, and pomegranates, each similar (in kind) yet different (in variety): When they begin to bear fruit, feast your eyes with the fruit and the ripeness thereof. Behold! In these things there are signs for people who believe.

(Q: S. 6, al-ʿAnʿām, 99).

(الأنعام: ٩٩)

﴿وَهُوَ الَّذِي أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجْنَا بِهِ نَبَاتَ كُلِّ شَيْءٍ فَأَخْرَجْنَا مِنْهُ خَضِرًا نُخْرِجُ مِنْهُ حَبًّا مُتَرَاكِبًا وَمِنَ النَّخْلِ مِنْ طَلْعِهَا قِنْوَانٌ دَانِيَةٌ وَجَنَّاتٍ مِنْ أَعْنَابٍ وَالزَّيْتُونَ وَالرُّمَّانَ مُشْتَبِهًا وَغَيْرَ مُتَشَبِهٍ ۚ انْظُرُوا إِلَى ثَمَرِهِ إِذَا أَثْمَرَ وَيَنْعِهِ ۚ إِنَّ فِي ذَلِكَ لَآيَاتٍ لِقَوْمٍ يُؤْمِنُونَ﴾

Nabātu kulli shayʿ نبات كل شيء (plants of all kinds) implies all that grows and emerges from the soil after rainfall or irrigation. This applies to such micro-organisms as bacteria and fungi, as well as musci (mosses), ferns, and higher plants of which there are hundreds of thousands. Some of these plants are visible to the naked eye, but others are microscopic one-celled organisms. The produce of all kinds of plants stands for the most general of produce. Then a sub-category of plants is introduced in the saying of Allah the Almighty: **فأخرجنا منه خضراً** (Then, we produce green plants), because not all plants contain chlorophyll. There are thousands of fungi whose cells lack this green colouring matter which renders them unable to make organic matter which contains energy. In consequence, they derive sustenance by living on other living beings or dead organic matter. Yet, green plants are part of a whole: some of them (e.g. algae, musci, and ferns) are unable to produce seeds or grains, but seed plants, which are more advanced, do. Thus, the above further specifies the categories by the adjectival clause **نخرج منه حبا متراكباً** (out of which we produce heaped grain). Allah the Most Exalted exemplifies this category by such plants as palm dates, grapes, olives and pomegranates.

﴿Najm نجم﴾

(star; acaulescent plant; herb)

In the Holy Qurʿān, **najm** نجم (sing.) appears in four places, and **nujūm** نجوم (pl.) in seven places. According to some commentators on the Holy Qurʿān, it only appears once with botanical implications. Allah the Most Sublime says:

And the herbs and the trees both (alike)
bow in adoration.

﴿وَالنَّجْمُ وَالشَّجَرُ يَسْجُدَانِ﴾

(الرحمن: ٦) (Q: S. 55, al-Raḥmān, 6).

If you say **najama al-nabt** نجم النبات, you mean the plant has emerged. The use of the lexical item **najm** is restricted to acauline plants (plants without a stem) or plants without an erect stem, while the lexical item **shajarah** شجرة is specific to plants with stem, stalk, or trunk.

Al-najmu min al-nabāt النجم من النبات refers to acaulous members of plant life that have emerged from the soil and lain flat. The contextual co-occurrence of **najm** and **shajar** in the above ʿĀyah lends support to the view that **najm** denotes all acaulescent plants, not stars. However, a few interpreters are of the opinion that **najm** in this

context denotes both plant and star simultaneously. Others take the view that **najm** is a proper noun denoting a certain plant (sing. **najmah**), namely **thayyil** ثيل or **najil** نجيل (*Cynodon dactylon* (L.) Pers.).

Abū Hanīfah al-Dīnawarī says that **thayyil**, **najmah**, and **`ikrish** denote the same plant. But in the light of modern knowledge, these plants are not the same: **thayyil** and **najil** are what is known in Latin as *Cynodon dactylon*, **najmah** is *Dactyloctenium aegyptium* (L.) P. Beauv (a grass with a star-like inflorescence); and **`ikrish** is *Aeluropus lagopoides* (a grass which grows in salt marshes). All belong to the family Graminae. It is needless to say that **najm** in the above **ʿĀyah** does not denote any of the above species. Rather, it means all acaulescent plant life.

﴿Nakhl نخل﴾ (palm tree)

Nakhlah نخلة : palm tree; pl. **nakhl** نخل , **nakhlāt** نخلات . In the Holy Qurʿān, the lexical item **nakhl** and its derivatives appear in 20 places in 16 sūras.

Nakhlah (palm tree) is a tropical or subtropical, evergreen, tree. It is known in Latin as *Phoenix dactylifera* of the family Palmae.

Nakhlah is a dioecious plant: the male and female flowers occur on different plants. In consequence, the process of pollination requires man to perform it artificially.

Nakhil palm trees are among the most important plants which man has depended upon for thousands of years. Palm trees played an important part in the economic and social life of the Arabs. It appears in their verse and prose; and books and treatises have been devoted to its description and names. Muslim physicians wrote prolifically on its fruit and beneficial uses. They also distinguished its different phases of growth: **bosr** (unripe date), **ruṭab** (ripe date), and **tamr** (dry date). Dry date roughly contains 20% water, 2.2% proteins, 1% fat, 1.8% minerals, and 2.4% fibre.

Mention of **nakhlah** is made in many **Hadīths**. There is hardly any book of the sayings and deeds of Prophet Mohammad (PBBUH) without mention of the palm tree and its parts. This is self-explanatory because it is a xerophytic plant, adapted to thriving in dry and hot climate and saline soil. Its yield is abundant; and it provides man with food, drink and shelter.

Such parts of the palm tree as **ṭal'** (palm inflorescence), **`urjūn** (receptacle-bearing stalk), **'akmām** (spathes), **judhū'** (trunks), and **'a'jāz** (bases), are mentioned in the Holy Qur'ān. **Nakhīl** is also mentioned in the context of groves and gardens. Besides, there is mention of the qualities of the palm tree and its parts by using such words as **ṣīnwān** (identical), **qinwān** (clusters of dates), **naḍīd** (contiguous, well arranged), **haḍīm** (sweet and shapely), **khāwiyah** (hollow), **munqa'ir** (torn up by the root), and **bāsiqāt** (tall and level). **Nakhīl** is also mentioned in the context of **thamarāt** (yield), **fākihah** (fruit), **ruṭabun janiyy** (ripe dates), and **rizqun ḥasan** (good subsistence).

Allah, May He be Exalted and Glorified, says:

Seest thou not how God sets forth a parable? A goodly word like a goodly tree, whose root is firmly fixed, and its branches (reach) to the heavens. It brings forth its fruit at all times, by the leave of its Lord; so God sets forth parables for men, in order that they may receive admonition.

﴿أَلَمْ تَرَ كَيْفَ ضَرَبَ اللَّهُ مَثَلًا كَلِمَةً طَيِّبَةً كَشَجَرَةٍ طَيِّبَةٍ أَصْلُهَا ثَابِتٌ وَفَرْعُهَا فِي السَّمَاءِ تُؤْتِي أَكْثَرَهَا كُلَّ حِينٍ بِإِذْنِ رَبِّهَا وَيَضْرِبُ اللَّهُ الْأَمْثَالَ لِلنَّاسِ لَعَلَّهُمْ يَتَذَكَّرُونَ﴾

(Q: S. 14, Ibrāhīm, 24,25). (ابراهيم: ٢٤ ، ٢٥)

It is related on trustworthy authority that **al-shajarat al-ṭayyibah** الشجرة الطيبة (the goodly tree, the tree of goodness), according to Prophet Mohammad (PBBUH), is the palm tree. The Messenger of Allah (PBBUH) likened the Muslim to it. Commentators are of the opinion that the points of comparison are: a) firmness of roots, b) pleasant yield and productivity, c) blamelessness, and d) usefulness of produce, whether dead or alive. The implication of the Muslim's branches reaching to the heavens is that his good deeds are appreciated and accepted by Allah the All-Infallible. Another example of comparison between the believer and the palm tree is the following **Hadīth**, which has been related on reliable authority:

A believer is like a palm-tree: whatever it gives you is useful. (H: S.).

«مثل المؤمن مثل النخلة وما آتاك منها نفعك»
(حديث شريف)

Ibn Ḥajar, in his al-Fath, says, "Some claim that the implied comparison is : a) if you chop its head off it dies, b) it would not bear fruit unless it is pollinated by man, c)

it dies if it is drowned, d) its inflorescence smells like human semen, e) it falls in love, or f) it draws water down its top. All these claims are groundless because these points of comparison are common to the whole human race, whether Muslim or non-Muslim. The claim that it was made from the surplus of the clay from which Adam was created is a much more groundless one. Only Allah is All-Omniscient."

﴿نَضِيد Naḍīd﴾

(contiguous, well arranged)

If you say **naḍada al-shayʿ** نَضَدَ الشَّيْءُ , you mean he piled s.th. one over another in an orderly and schematic manner.

The lexical item, **naḍīd** نَضِيد appears in the following ʿĀyah:

And tall (and stately) palm-trees, with shoots of fruit-stalks, piled one over another.

﴿وَالنَّخْلَ بَاسِقَاتٍ لِّمِطَعٍ نَّضِيدٍ﴾

(Q: S. 50, Qāf, 10). (ق: ١٠)

Talʿun naḍīd طَلْع نَضِيد means talʿ(stalk) which is still in its spathe, and whose components are interarranged. The male or the female flowers, present in the inflorescences of the date palm are well arranged and sheathed in spathes. Thus, they are **mandūd**; (fem.) مَنْضُودَة well-arranged.

Mandūd مَنْضُود appears in two places in the Holy Qurʾān:

..., and rained down on them brimstones hard as baked clay, spread, layer on layer.

﴿وَأَمْطَرْنَا عَلَيْهَا حِجَارَةً مِّن سِجِّيلٍ مَنْضُودٍ﴾

(Q: S. 11, Hūd, 82). (هود: ٨٢)

And:

(They will be) among lote-trees without

﴿فِي سِدْرٍ﴾

thorns, and ṭalḥ trees with flowers (or fruits) piled one above another.

مَنْصُورٌ وَطَلْحٌ مَنْصُورٌ ﴿٢٩﴾

(Q: S. 11, al-Wāqiah, 28, 29). (الواقعة: ٢٨ ، ٢٩)

In the **sūrāh** of Hūd, **mandūd** refers to the consecutive accumulation of stones, and their consecutive fall like that of beads falling off their string. For describing **ṭalḥ** as **mandūd**, see **ṭalḥ**.

﴿Naqīr نقير﴾ (micropyle)

Naqīr نقير is the very small pore in the seed coat, through which the water enters during germination.

As defined in Lisān al-ʿArab, **naqīr** is the small depression in the back of the seed, from which the palm tree grows. This is botanically correct because the micropyle points to the place of the embryo in the back of the date seed. The rest of the seed is the endosperm which contains food supply of the embryo.

Naqīr is so small that it is not visible to the naked eye. One way of spotting its place is to soak the seed in water, and press it between the fingers. The water or bubbles that issue from the seed point to the **naqīr**.

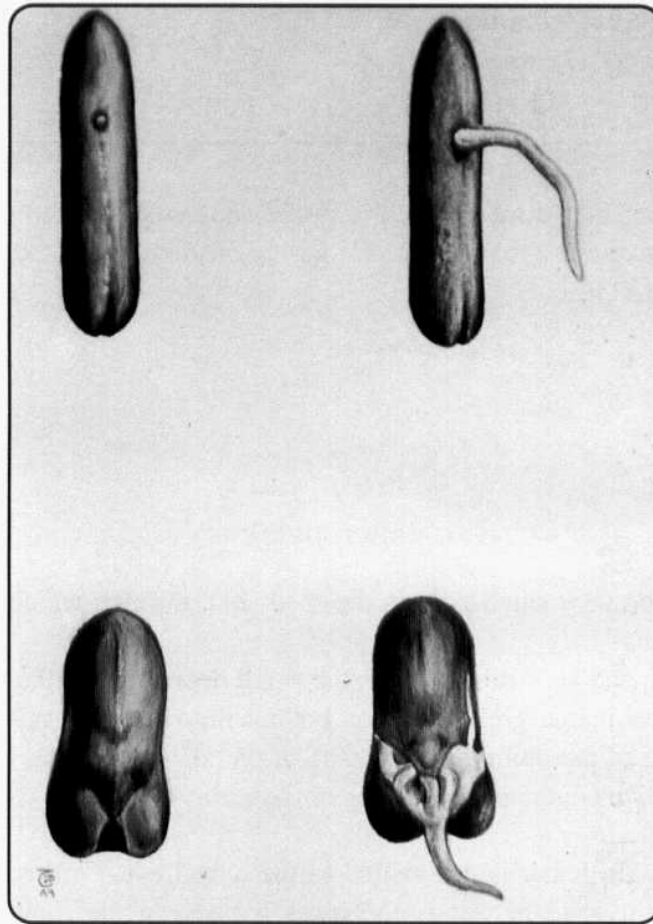
The lexical item, **naqīr**, appears twice in the Holy Qurʾān. Allah the Most Sublime says in the context of recounting the actions of the Jews and how they refrain from giving people their dues:

Have they a share in dominion or power? Behold, they give not a farthing to their fellow-men?

﴿أَمْ لَهُمْ نَصِيبٌ مِّنَ الْمُلْكِ فَإِذَا لَا يُؤْتُونَ النَّاسَ نَقِيرًا﴾

(Q: S. 4, al-Nisāʾ, 53). (النساء: ٥٣)

In fact, they had no share in dominion or power, and even if they did they would not give people a **naqīr**, for they are avaricious and envious.



Naqir

Allah the All-Perfect also says:

If any do deeds of righteousness, be they male or female and have faith, they will enter heaven, and not the least injustice will be done to them.

(Q: S. 4, al-Nisā', 124).

﴿وَمَنْ يَعْمَلْ مِنَ الصَّالِحَاتِ مِنْ ذَكَرٍ أَوْ
أُنْثَىٰ وَهُوَ مُؤْمِنٌ فَأُولَٰئِكَ يَدْخُلُونَ الْجَنَّةَ
وَلَا يُظْلَمُونَ نَقِيرًا﴾

(النساء: ١٢٤)

By extension, **naqir** is used to denote any thing small or worthless.

﴿Nawā نوى﴾

(stones, seeds, nuclei)

The lexical item, **nawā نوى** appears in the words of Allah the Most Sublime. He says:

It is Allah who causeth the grain and the date stone to split and sprout.

﴿إِنَّ اللَّهَ فَالِقُ الْحَبِّ وَالنَّوَى﴾

(Q: S. 6, al-ʿAnʿām, 95). (الأنعام: ٩٥)

Nawā is pl., **nawāh** (sing.); and may be used as masculine or feminine. **Al-nawāh** النواة is the date stone, grape seed, etc. We believe that **nawā** are the seeds or stones of a tender, berry fruit, irrespective of whether it has one stone or more. The **nawāh**, which stands for the seed, consists of parts, most important of which are the embryo. In its turn, the embryo is comprised of a plumule, a radicle, and one or two cotyledons. The plumule gives the shoot system of the plant, and the radicle usually develops into the root system. The food supply: carbohydrates, proteins, fats, etc. is stored in the cotyledons. When the cotyledons are very small, the food supply of the embryo is stored in the endosperm. The seed is covered by a coat, technically known as the testa. In the testa, close to the radicle, there is a very small opening through which water enters the seed during germination. (See **naqīr**).

The date seed has a small embryo, with one small cotyledon; the endosperm fills the major bulk of the seed. The stone of olive, apricot, peach and almond is actually a seed surrounded by the woody endocarp (the inner part of the fruit wall). The seed has an embryo composed of a radicle, plumule and two cotyledons. Thus **nawāh** may denote a seed, or a seed plus endocarp. The grain, on the other hand, is a caryopsis fruit. (See **habb**).

﴿Hāmidah هامة﴾

Humūd همود implies acquiescence, death, and decomposition. **Nabātun hāmid** نبتات هامة means dry, withered plant. **Hamada shajaru al-ʿard** همد شجر الأرض the vegetation of the land has withered and disappeared.

The lexical item, **hāmidah هامة** appears once in the Holy Qurʾān. Allah the Most Sublime says:

And (further), thou seest the earth barren and lifeless, but when We pour down rain on it, it is stirred (to life), it swells.

﴿وَتَرَى الْأَرْضَ هَامِدَةً فَإِذَا أَنْزَلْنَا عَلَيْهَا الْمَاءَ اهْتَزَّتْ وَرَبَتْ﴾

(الحج: ٥) (Q: S. 22, al-Hajj, 5).

‘**Arḍun hāmidah** هامة أرض means a land with no vegetation except that which has withered away, and has been blown to smithers. In other words, it has become barren because of drought. **Humūdu al-‘ard** همود الأرض means that the soil is lifeless, barren, and has received no rain.

﴿ اهتز اهتزاز , هز هززا ﴾ (shake, move)

Hazz هز (n.): causing s.th. to move. **Hazza** هز (vb. perf.), **yahuzzu** يهز (vb. imperf.), **hazzan** هزا (v.n.): to push and pull s.th. forcefully. **Hazza bihi** may also be used, where **bi** ب is added for emphasis.

This lexical item appears five times in the Holy Qur`ān; once as an imperative verb:

And shake towards thyself the trunk of the palm tree; it will let fall fresh ripe dates upon thee.

﴿وَهَزَى إِلَيْكَ بِجَنَاحِ النَّخْلَةِ تُسْقِطُ عَلَيْكَ رَطْبًا جَنِيًّا﴾

(مریم: ٢٥) (Q: S. 19, Maryam, 25).

It appears twice as an imperfect verb in connection with Moses`rod:

But when he saw it moving (of its own accord) as if it had been a snake, he turned back in retreat.

﴿فَلَمَّا رَأَاهَا اهْتَزَّتْ وَكَانَتْ كَأَنَّهَا جَانٌّ وَلَّى مُدْبِرًا﴾

(النمل: ١٠) (Q: S. 27, al-Naml, 10).

Also see al-Qaṣaṣ, 31.

Twice it appears as a perfective verb in the sense of stirring the earth to life. Allah the Most Sublime says:

And (further), thou seest the earth barren and lifeless, but when We pour down rain on it, it is stirred (to life), it swells, and it puts forth every kind of beautiful growth (in pairs).

(Q: S. 22, al-Hajj, 5). (الحج: ٥)

﴿وَتَرَى الْأَرْضَ هَامِدَةً فَإِذَا أَنْزَلْنَا عَلَيْهَا الْمَاءَ
أَهْتَزَّتْ وَرَبَتْ وَأَنْبَتَتْ مِنْ كُلِّ زَوْجٍ بَهِيجٍ﴾

He also says:

And among His signs is this, thou seest the earth barren and desolate; but when We send down rain to it, it is stirred to life and yields increase. Truly, He who gives life to the (dead) earth can surely give life to (men) who are dead. For He has power over all things.

(Q: S. 41, Fuṣṣilat, 39). (فصلت: ٣٩)

﴿وَمِنْ آيَاتِهِ أَنْ تَرَى الْأَرْضَ خَاشِعَةً فَإِذَا أَنْزَلْنَا عَلَيْهَا
الْمَاءَ أَهْتَزَّتْ وَرَبَتْ إِنَّ الَّذِي أَحْيَاهَا لَمُحْيِي الْمَوْتِ إِنَّهُ
عَلَى كُلِّ شَيْءٍ قَدِيرٌ﴾

Al-Qurtubī (12/13) says:

"The earth is shaken by vegetation because it would not emerge from the soil unless the latter has been unnoticeably removed by the former. Thus *'ihtizāz* is used here figuratively. If you say *'ihtazza nabātuhā اهتز نباتها* (its vegetation has been stirred to life), you have deleted the genitive noun and replaced it by a pronoun. *'ihtizāz* is strong movement. When *'ihtizāz* is used for vegetation, it means emergence from the soil".

Both *ʿĀyas* were revealed in the context of underlining that Allah the All-Perfect rejuvenates the dead and resurrects them for reckoning.

﴿هشيم Hashīm﴾ (smithereens, dry stubble)

S.o. **hashama** هشم s.th.: s.o. smashed s.th. **al-Hashīmu mina al-nabāt** من الهشيم is smithereens because of its dryness. **Al-hashīmah** الهشيمة : old, shabby, dry tree; pl. **hashīm** هشيم .

The lexical item, **hashīm** هشيم appears twice in the Holy Revelation. It appears in 'Āyah 46 of al-Kahf sūrah, where Allah the All-Perfect says:

Set forth to them the similitude of the life of this world: it is like the rain which We send down from the skies: the earth's vegetation absorbs it. But soon it becomes dry stubble, which the winds do scatter: it is (only) Allah who prevails over all things.

(Q: S. 18, al-Kahf, 45). (الكهف: ٤٥)

﴿وَأَضْرَبَ لَهُم مِّثْلَ الْحَيَاةِ الدُّنْيَا كَمَا أَتْرَكْنَاهُ مِنَ السَّمَاءِ
فَاخْتَلَطَ بِهِ نَبَاتُ الْأَرْضِ فَأَصْبَحَ هَشِيمًا تَذْرُوهُ
الرِّيحُ وَكَانَ اللَّهُ عَلَى كُلِّ شَيْءٍ مُّقْنَدًا﴾

This is an example pointed out by Allah the All-Perfect, an example of extinction in the world: grains sprout out, the plant grows and blooms, then it becomes **hashīman** هشيماً (dry stubble) which the wind blows hither and thither.

The lexical item **hashīm** هشيم appears once more in the following words of Allah the Most Sublime:

For We sent against them a single mighty blast, and they became like the dry stubble used by one who pens cattle.

(Q: S. 54, al-Qamar, 31). (القمر: ٣١)

﴿إِنَّا أَرْسَلْنَا عَلَيْهِمْ صَيْحَةً وَاحِدَةً فَكَانُوا كَهَشِيمِ الْمُحْتَظِرِ﴾

Here, Allah the All-Perfect recounts the fate of the Thamūd, people of Prophet Ṣaliḥ, following the Blast: **fa kānū ka hashīm al-muḥtaẓir** فكانوا كهشيم المحتظر (they became like fallen leaves and branches of a pen after they had been stampeded by cattle). **Al-muḥtaẓir** denotes s.o. who has made a pen of branches and thorn for

the protection of domesticated animals. Ibn `Abbās says, "The fallen bits of a pen, that have been crushed by cattle, are **hashīm**". This lexical item, is explained in al-Kashshāf (4/47) as: "That of which a pen is made dries up in time, then animals tread on it and crush it to smithereens". Ibn Zayd says, "The Arabs call any green thing that has dried up **hashīm** هشيم". With reference to the above phrase, it is said that Ibn `Abbās paraphrased it as follows: "They became like wheat that has been stamped". It follows that **muḥtaẓir** is s.o. who has made a hedge around his farm or garden, and **hashīm** is the crumbs of spikes and hay. **Hashīm al-muḥtaẓir** has also been interpreted as burnt bones. Al-Ṭabarī says, "It seems that they took it to mean that following the destruction of those people they looked like s.th. that s.o. has burnt in the enclosure for his animals". Ibn Jubayr says, "**Hashīm al-muḥtaẓir** is the earth blown from a (clay) wall". But this explication is viewed by Ibn Kathīr as rather odd.

﴿ **Haḍīm** هضم ﴾

(ripe, shapely, well-formed,
pleasing to the eye)

Haḍīm هضم is lexically used to denote s.th. which is shapely and pleasing to the eye. When it is used as an attribute of a plant, **haḍīm** هضم means ripe; when a plant ripens it looks shapely and relatively compact.

Haḍīm هضم appears once in the Holy Qurʾān when Allah the All-Perfect says in the context of recounting the story of the Thamūd people:

Will ye be left secure in (the enjoyment of) all that ye have here? Gardens and springs, and cornfields and date palms with spathes near breaking (with the weight of fruit)?

﴿ أَتَرْكُونَ فِي مَا هُنَا آمِنِينَ فِي جَنَّاتٍ وَعُيُونٍ
وَزُرُوعٍ وَنَخْلٍ طَلَعُهَا هَضِيمٌ ﴾

(الشعراء: ١٤٦-١٤٨) (Q: S. 26, al-Shuʿarāʾ 146-148).

Early commentators on the Holy Qurʾān have suggested 12 interpretations of **ṭalʿun haḍīm** طلع هضم (al-Qurṭubī: 13/128), all based on the lexical implication of its constituents. Among these interpretations are the following: **ruṭabun layyin** رطب لين (soft, ripe dates), **al-mudhannabu mina al-ruṭab** المذنب من الرطب (dates whose lower half has ripened), **al-yānīʿu al-naḍīj** البانع النضيج (that which is ripe and mellow),

al-birnī (best strain of dates), **al-mutahashshimu al-mutafattitu min al-ruṭab** المتهشم المتفتت من الرطب (squashy, crushable dates: you squash it when you hold it, and it melts away when you mouth it), and that which has withered from being touched, or from being heaped over one another.

Al-Ṭabarī (19/62) supports the view that **haḍīm** هضم means split open for softness and juiciness, which results from touching or being heaped up.

It is likely (only Allah is All-Omniscient) that it describes the digestability of palm dates. Ibn al-ʿAʿrābī has interpreted **haḍīm** هضم in the above ʿĀyah as **marī** مري (healthy, salubrious). Al-Lisān defines **ṭaʾāmun marī** طعام مري as food which is not difficult for the stomach to digest.

It is common knowledge that plant organs eaten by man or animal include both digestable and non-digestable matter (e.g. fibre). Fresh, ripe fruits contain a relatively high proportion of digestable matter in comparison with green, unripe ones. To put it another way, the enzymes present in man's stomach and animal intestines are unable to digest unripe fruit and change them into simple matter that can be easily absorbed by the body.

﴿ Hayj هيج ﴾

(state of becoming dry)

If you say **hāja** هاج (perfective vb.) **yahīju** يهيج (imperfective vb.) **al-nabt** النبات , you mean the plant dried up after it had lost all moisture and greenness, i.e. it has withered and turned yellow. For **hayj** to be applicable to any plant, it: a) should have lost grasp of its position, and b) should have become eradicate.

The imperfective form of the verb **yahīj** يهيج appears twice in the Holy Qurʾān. Allah the All-Perfect, All-Infallible says:

Seest thou not that Allah sends down rain from the sky, and leads it through springs in the earth? Then He causes to grow, therewith, produce of various colours: then it withers; thou wilt see it

﴿ أَلَمْ تَرَ أَنَّ اللَّهَ أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَسَلَكَهُ يَنْبِيعَ فِي الْأَرْضِ ثُمَّ يُخْرِجُ بِهِ زَرْعًا مُخْتَلِفًا أَلْوَانُهُ ثُمَّ يَهِيَجُ فَتَرَاهُ

grow yellow; then He makes it dry up
and crumble away.

مُصْفَرًّا ثُمَّ يَجْعَلُهُ حُطَامًا ﴿٢١﴾

(Q: S. 39, al-Zumar 21). (الزمر: ٢١)

He also says:

Know ye (all), that the life of this world
is but play and amusement, pomp and
mutual boasting and multiplying, (in
rivalry) among yourselves, riches and
children. Here is a similitude, how rain
and the growth which it brings forth,
delight (the hearts of) the tillers; soon it
witheres; thou wilt see it grow yellow;
then it becomes dry and cumbles away.

﴿أَعْلَمُوا أَنَّمَا الْحَيَاةُ الدُّنْيَا لَعِبٌ وَلَهُمْ زِينَةٌ وَتَفَاخُرٌ
بَيْنَهُمْ وَكَثِيرٌ مِّنَ الْأَمْوَالِ وَالْأَوْلَادِ كَمِثْلِ غَيْثٍ أَجْبَبَ
الْكَفَّارُ نَبَاتُهُ ثُمَّ يَهِيجُ فَتَرَاهُ مُصْفَرًّا ثُمَّ يَكُونُ حُطَامًا ﴿٢٠﴾

(Q: S. 57, al-Hadid, 20). (الحديد: ٢٠)

Most exegetists are of the opinion that both *Āyas* are parables for people to draw the religious lesson that life on earth is short and of little use: believers should work with the Hereafter in mind. (Al-Qurṭubī: 15/245, 17/256; Ibn Kathīr: 4/55; al-Kashshāf 3/344).

With the exception of al-Zamakhsharī, all exegetist maintains that changes in the state of the plant are merely meant to state the facts. Al-Zamakhsharī ascribes the plant's growing yellow to punishment by Allah. Thus he states: "Allah struck the plant with a disease which caused it to wither, grow yellow, and crumble away, as punishment for their ingratitude, as He did to the proprietors of the grove, and the owner of the two groves".

From the botanic point of view, a plant grows yellow when it withers. In other words, it loses its chlorophyll (the green colouring matter). Then it dries up, a mark of the plant's death. By time, it crumbles away and fragments. (cf. **muṣfarr** مصفر).

﴿Waraq ورق﴾ (leaves)

Waraq al-shajar ورق الشجر (tree leaves) are common knowledge. **Al-waraqah الورقة** (leaf) is one of the plant organs that are often broad or expanded. It may assume different shapes, some of which may be unfamiliar. The principal function of the leaf is photosynthesis. Put another way, the leaf is the factory where the plant's food is made; it is the organ where simple inorganic matter is converted in the presence of chlorophyll and photoenergy into organic matter, whence it spreads to all other organs of the plant.

Waraq appears in the context of the story of Adam (PBUH), where He and Eve ate of the tree that they had been instructed not to. Allah the All-Perfect says:

When they tasted of the tree, their shame became manifest to them, and they began to sew together the leaves of the Garden over their bodies.

﴿فَلَمَّا ذَاقَا الشَّجَرَ بَدَتْ لَهُمَا سَوْءُهُمَا وَطَفِقَا يَخْصِفَانِ عَلَيْهِمَا مِنْ وَرَقِ الْجَنَّةِ﴾

(Q: S. 7, al-A`rāf, 22). (الأعراف: ٢٢)

In the result, they both ate of the tree, and so their nakedness appeared to them: they began to sew together, for their covering, leaves from the Garden.

﴿فَأَكَلَا مِنْهَا فَبَدَتْ لَهُمَا سَوْءُهُمَا وَطَفِقَا يَخْصِفَانِ عَلَيْهِمَا مِنْ وَرَقِ الْجَنَّةِ﴾

(Q: S. 20, Tāha, 121). (طه: ١٢١)

Yakhṣifu al-waraq الورق يخصف s.o. is aligning the leaves together, or s.o. is fitting the leaves together. **Wa ṭafiqā yakhṣifāni `alayhimā min waraqi al-jannah** : **وطفقا يخصفان عليهما من ورق الجنة** : They fitted together leaves from (the trees) of Paradise in order to cover their private parts; (cf. Adam in the Dictionary).

Allah, may He be Most Exalted and Glorified, also says:

Not a leaf doth fall but with His knowledge.

﴿وَمَا تَسْقُطُ مِنْ وَرَقَةٍ إِلَّا يَعْلَمُهَا﴾

(Q: S. 6, al-`An`ām, 59). (الأنعام: ٥٩)

In regard to retaining their leaves, trees fall into two categories: first, deciduous trees which shed their leaves at certain season (usually autumn), and grow them at another (usually spring); second, evergreen trees which do not shed their leaves all at once, and consequently continue to be green all the year round.

﴿يَقْطِين﴾ **Yaqṭīn** (acaules: plants with no stem or stalk)

Yaqṭīn يَقْطِين denotes any acaulescent plant, such as al-dubbā' الدباء (*Cucurbita* sp.), pumpkin القرع (*Cucurbita maxima*), vegetable marrow الكوسة (*Cucurbita pepo*) al-battikh البطيخ water melon (*Citrullus vulgaris*), al-ḥanzal الحنظل colocynth (*Citrullus colocynthis*), al-qiththā' القثاء and al-khiyār الخيار cucumbers (*Cucumis sativus*) and al-lūf اللوف towel gourd (*Luffa cylindrica*).

This lexical item appears once in the Holy Qur'ān in the context of recounting the story of Yūnus (PBUH). Allah, the Most Sublime says:

But We cast him forth on the naked shore in a state of sickness, and We caused to grow, over him, a spreading plant of the gourd kind.

﴿فَنَذَرْنَاهُ بِالْعَرَاءِ وَهُوَ سَقِيمٌ وَأَبْلَغْنَا عَلَيْهِ شَجَرَةً مِّنْ يَقْطِينٍ﴾

(Q: S. 37, al-Şāffat, 145, 146). (الصافات: ١٤٥، ١٤٦)

The descriptions propounded by linguists and exegetists suggest that **yaqṭīn** يَقْطِين denotes plants of the family Cucurbitaceae, as shown by the aforementioned species. They are all creepers, but some of them climb any support they are trained on, whether it is another plant or an upright stick. Several species of the Cucurbitaceae family grow in the Arabian Peninsula. It is noteworthy that **al-dubbā'**, appears in several **Ḥadīths** of Prophet Mohammad (PBBUH). **Al-dubbā'** is a plant which is served in cooked form. It probably refers to *Cucurbita maxima* (pumpkin) or *Cucurbita pepo* (vegetable marrow), or it probably refers to a bottle-shaped, cucurbitary variety which becomes hollow when it dries up. In consequence, it floats on the surface of water, which makes it a suitable aid in swimming. The early Arabs used **al-dubbā'** as a container for fermenting wine. Prophet Moḥammad (PBBUH) enjoined on them to refrain from doing so (El-Batanouny 1986).

﴿Yan` ينع﴾
(ripeness and maturity)

Yan` ينع : ripeness and maturity. **Al-Thamaru al-yāni`** النمر اليانع is **al-thamaru al-nāḍij**, i.e. ripe produce that has matured and become tasty, and is ready to pick, reap, or harvest.

The lexical item, **yan`** ينع appears once in the Holy Qur`ān. Allah the Most Sublime says:

When they begin to bear fruit, feast
your eyes with the fruit and the
ripeness thereof.

﴿أَنْظُرُوا إِلَى ثَمَرِهِ إِذَا أَثْمَرَ وَيَنْعِهِ﴾

(Q: S. 6, al-`An`ām, 99). (الأنعام: ٩٩)

Ripeness is a process which involves a number of chemical, biochemical and physiological reactions and changes caused by several enzymes. This is accompanied by change in the colour of the plant from green to some other colour, depending upon the plant species. Man realizes that the fruit has ripened by its pleasant taste due to changes in its content of carbohydrates.

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